

# STIC Search Report

**EIC 1700**

STIC Database Tracking Number: 951120

**TO:** Amanda Walke  
**Location:** CP3 9B30  
**Art Unit :** 1752  
**May 29, 2003**

**Case Serial Number:** 09/893551

**From:** Kathleen Fuller  
**Location:** EIC 1700  
**CP3/4 3D62**  
**Phone:** 308-4290

**Kathleen.Fuller@uspto.gov**

## Search Notes

## SEARCH REQUEST FORM

## Scientific and Technical Information Center

Requester's Full Name: Amanda Walker Examiner #: 15663 Date: 5/27/2003  
 Art Unit: 1752 Phone Number 305-0407 Serial Number: 09/883551  
 Mail Box and Bldg/Room Location: CP3 9830 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc., if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Color Filter Array having a yellow filter layer

Inventors (please provide full names): Miura, Endo, Uchida, Sayama

Earliest Priority Filing Date: 6/30/2001

\*For Sequence Searches Only\* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

Please search for a photo sensitive resin resin having a polymer azo dye when  
 absorption may between 400-500nm. Thank you.  
 ↳ An example from the Spec of the PGPUB is provided.

Other restriction, elected 11-14

## STAFF USE ONLY

Searcher: K. Fuller

Searcher Phone #: 305-0407

Searcher Location: CP3 9830

Date Searcher Picked Up: 5/29/03

Date Completed: 5/29/03

Searcher Prep & Review Time: 20

Clerical Prep Time: 25

Online Time: 25

PTO-1590 (8-01) subset search

## Type of Search

NA Sequence (#)

STN

AA Sequence (#)

Dialog

Structure (#)

2

Bibliographic

Questel/Orbit

Litigation

Dr. Link

Fulltext

Lexis/Nexis

Patent Family

Sequence Systems

Other

WWW/Internet

Other (specify)

# EIC1700

## Search Results

### Feedback Form (Optional)



Scientific & Technical Information Center

The search results generated for your recent request are attached. If you have any questions or comments (compliments or complaints) about the scope or the results of the search, please contact *the EIC searcher* who conducted the search *or contact:*

Kathleen Fuller, Team Leader, 308-4290, CP3/4 3D62

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#### *Voluntary Results Feedback Form*

➤ *I am an examiner in Workgroup:*  *Example:*

➤ *Relevant prior art found, search results used as follows:*

- 102 rejection
- 103 rejection
- Cited as being of interest.
- Helped examiner better understand the invention.
- Helped examiner better understand the state of the art in their technology.

*Types of relevant prior art found:*

- Foreign Patent(s)
- Non-Patent Literature  
(journal articles, conference proceedings, new product announcements etc.)

➤ *Relevant prior art not found:*

- Results verified the lack of relevant prior art (helped determine patentability).
- Search results were not useful in determining patentability or understanding the invention.

**Other Comments:**

=> file reg

FILE 'REGISTRY' ENTERED AT 10:37:15 ON 29 MAY 2003  
 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
 PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
 COPYRIGHT (C) 2003 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 28 MAY 2003 HIGHEST RN 521913-14-4  
 DICTIONARY FILE UPDATES: 28 MAY 2003 HIGHEST RN 521913-14-4

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2003

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details:  
<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

=> file hcaplus

FILE 'HCAPLUS' ENTERED AT 10:37:24 ON 29 MAY 2003  
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 PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
 COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)

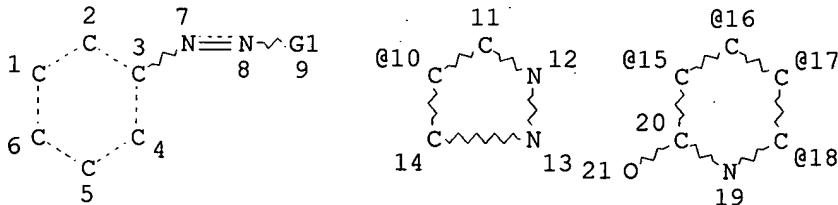
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FILE COVERS 1907 - 29 May 2003 VOL 138 ISS 22  
 FILE LAST UPDATED: 28 May 2003 (20030528/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d que

L1 STR



*Covers  
 pyridone or  
 pyrazolone*

VAR G1=10/15/16/17/18

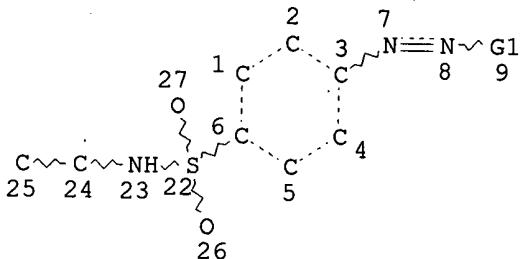
NODE ATTRIBUTES:

CONNECT IS E1 RC AT 21  
DEFAULT MLEVEL IS ATOM  
DEFAULT ECLEVEL IS LIMITED

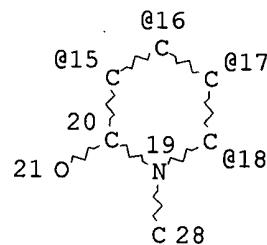
GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 21

STEREO ATTRIBUTES: NONE

L3 28118 SEA FILE=REGISTRY SSS FUL L1  
L7 STR

subset search for  
pyridone



47 structure

VAR G1=15/16/17/18

NODE ATTRIBUTES:

CONNECT IS E1 RC AT 21  
DEFAULT MLEVEL IS ATOM  
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 23

STEREO ATTRIBUTES: NONE

L10	47 SEA FILE=REGISTRY SUB=L3 SSS FUL L7	
L15	29 SEA FILE=HCAPLUS ABB=ON L10	
L16	0 SEA FILE=HCAPLUS ABB=ON L15 AND (WAVELENGTH? OR WAVE LENGTH? OR WVLT)	
L17	0 SEA FILE=HCAPLUS ABB=ON L15 AND WAVE LGTH	
L18	0 SEA FILE=HCAPLUS ABB=ON L15 AND WAVE?	
L19	27 SEA FILE=HCAPLUS ABB=ON L15 AND YELLOW?	
L20	0 SEA FILE=HCAPLUS ABB=ON L15 AND ABSORB?	
L21	27 SEA FILE=HCAPLUS ABB=ON (L16 OR L17 OR L18 OR L19 OR L20)	
L22	425 SEA FILE=HCAPLUS ABB=ON <u>PYRIDONE?</u> (3A) AZO	
L25	1 SEA FILE=HCAPLUS ABB=ON L22 AND YELLOW? (3A) (FILTER? OR FILTRE?)	
L26	18 SEA FILE=HCAPLUS ABB=ON L22 AND (WAVE? OR ABSORP?)	
L27	0 SEA FILE=HCAPLUS ABB=ON L15 AND ABSORP?	
L28	45 SEA FILE=HCAPLUS ABB=ON L21 OR L25 OR L27 OR L26	
L29	4 SEA FILE=HCAPLUS ABB=ON L15 AND (RESIN? OR ?POLYMER?)	
L30	5 SEA FILE=HCAPLUS ABB=ON L28 AND (RESIN? OR ?POLYMER?)	
L31	31 SEA FILE=HCAPLUS ABB=ON L22 AND (RESIN? OR ?POLYMER?)	
L32	1 SEA FILE=HCAPLUS ABB=ON L31 AND ((PHOTO? OR LIGHT?) (2A) ?SENSIT IV? OR PHOTOSENSITIV?)	
L33	0 SEA FILE=HCAPLUS ABB=ON L21 AND ((PHOTO? OR LIGHT?) (2A) ?SENSIT IV? OR PHOTOSENSITIV?)	

29 CT  
references

also  
searched  
left

L34 3 SEA FILE=HCAPLUS ABB=ON L21 AND (RESIN? OR ?POLYMER?)  
 L35 30 SEA FILE=HCAPLUS ABB=ON L21 OR L25 OR L27 OR L29 OR L30 OR  
 L32 OR L33 OR L34

=> d 135 all 1-30 hitstr

L35 ANSWER 1 OF 30 HCAPLUS COPYRIGHT 2003 ACS  
 AN 2002:7627 HCAPLUS  
 TI A color **filter** array having a **yellow filter** layer  
 IN Machiguchi, Kazuhiro; Ueda, Yuuji; Endo, Hiroki; Uchida, Yoshinori;  
 Sayama, Yukihiro  
 PA Sumitomo Chemical Company, Limited, Japan  
 SO Eur. Pat. Appl.  
 CODEN: EPXXDW  
 DT Patent  
 LA English  
 IC ICM G02F001-1335  
 ICS G02B005-22  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1168046	A1	20020102	EP 2001-114861	20010628
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	JP 2002014223	A2	20020118	JP 2000-198914	20000630
	US 2002048709	A1	20020425	US 2001-893551	20010629
PRAI	JP 2000-198914	A	20000630		

AB A color **filter** array having a **yellow filter** layer on a substrate wherein the **yellow filter** layer comprises a **pyridone azo** dye having its **absorption** max. at a **wavelength** of 400 to 500 nm; and has a transmittance at a **wavelength** of 450 nm of 5% or less, that at 535 nm of 80% or more and that at 650 nm of 90% or more is provided; the color filter array shows excellent spectroscopic characteristics with respect to yellow light, is capable of forming a pattern with a short time exposure and has a **yellow filter** layer excellent in light fastness; and a **photosensitive resin** compn. with which a pattern can be formed with a short time exposure is also provided.

RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 RE

- (1) Anon; JP 06294909 A 1994 HCAPLUS
- (2) Anon; PATENT ABSTRACTS OF JAPAN 1995, V1995(01)
- (3) Anon; PATENT ABSTRACTS OF JAPAN 1997, V1997(09)
- (4) Anon; PATENT ABSTRACTS OF JAPAN 2000, V2000(07)
- (5) Kyodo Printing Co Ltd; JP 10288708 A 1998 HCAPLUS
- (6) Kyodo Printing Co Ltd; US 6203951 B1 2001 HCAPLUS
- (7) Mitsui Toatsu Chem Inc; JP 06294909 A 1994 HCAPLUS
- (8) Nippon Kayaku Co Ltd; JP 09118836 A 1997 HCAPLUS
- (9) Okamoto Kagaku Kogyo Kk; JP 2000122278 A 2000 HCAPLUS

L35 ANSWER 2 OF 30 HCAPLUS COPYRIGHT 2003 ACS  
 AN 2000:750345 HCAPLUS  
 DN 133:323119  
 TI Water-thinned inks for ink jet printing with good water and light resistance and storage stability

IN Ohi, Toru; Matsuzaki, Yoriaki; Ohkuma, Tadashi; Kogo, Osamu  
 PA Mitsui Chemical Industry Co., Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 13 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C09D011-00

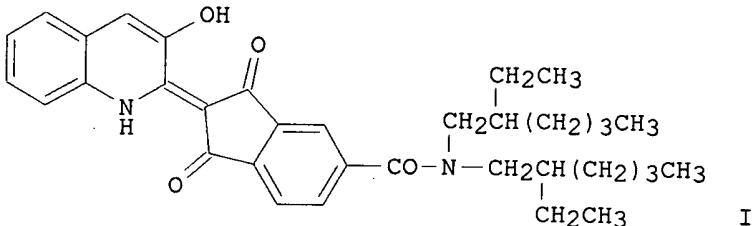
ICS B41J002-01; B41M005-00

CC 42-12 (Coatings, Inks, and Related Products)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000297234	A2	20001024	JP 1999-105389	19990413
PRAI	JP 1999-105389		19990413		

GI



AB The inks contain **polymer** dispersions and oil-sol. dyes with .ltoreq.1% water solv. and .gtoreq.10% PhMe solv. Thus, a 15% water-thinned **yellow** ink contg. di-Me 5-sodiosulfoisophthalate-di-Me terephthalate-ethylene glycol-tricyclodecanedimethanol **copolymer** dispersion (av. diam. 0.1 .mu.m) colored with oil-sol. **yellow** dye I (PhMe solv. 35%) showed no clogging after staying at 40.degree. for 2 mo. and gave a printed image with water and light resistance and no feathering.

ST water thinned jet printing ink **polymer**; oil soluble dye **polymer** dispersion ink; sodiosulfoisophthalate terephthalate ethylene cyclodecanedimethanol copolyester dispersion ink; feathering water light resistance polyester dispersion ink

IT Light-resistant materials  
 Light-resistant materials  
 (inks; water-thinned jet-printing inks with good water and light resistance and storage stability)

IT Water-resistant materials  
 (jet-printing inks; water-thinned jet-printing inks with good water and light resistance and storage stability)

IT Inks  
 (jet-printing, anticlogging, storage-stable; water-thinned jet-printing inks with good water and light resistance and storage stability)

IT Inks  
 (jet-printing, water-resistant; water-thinned jet-printing inks with good water and light resistance and storage stability)

IT Inks  
 (jet-printing, water-thinned; water-thinned jet-printing inks with good water and light resistance and storage stability)

IT Inks

## Inks

(light-resistant; water-thinned jet-printing inks with good water and light resistance and storage stability)

## IT Dyes

(oil-sol.; water-thinned jet-printing inks with good water and light resistance and storage stability)

## IT Polyesters, uses

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(water-thinned jet-printing inks with good water and light resistance and storage stability)

## IT Polymers, uses

RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(water-thinned jet-printing inks with good water and light resistance and storage stability)

IT 119401-54-6 142358-19-8 159880-81-6 264602-09-7

271246-37-8 303022-08-4 303022-10-8 303022-12-0 303022-13-1

RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(oil-sol. dye; water-thinned jet-printing inks with good water and light resistance and storage stability)

IT 81977-96-0P, Dimethyl isophthalate-dimethyl terephthalate-dimethyl

5-sodiosulfoisophthalate-ethylene glycol-neopentyl glycol

copolymer 213381-36-3P, Dimethyl 5-sodiosulfoisophthalate-

dimethyl terephthalate-ethylene glycol-tricyclodecanedimethanol

copolymer

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(water-thinned jet-printing inks with good water and light resistance and storage stability)

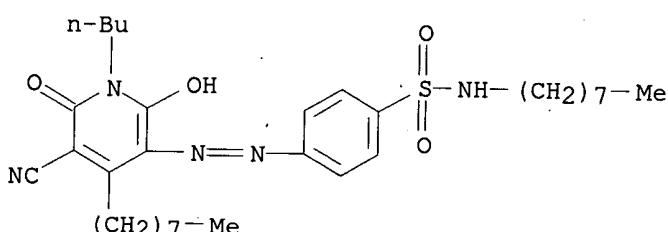
IT 119401-54-6

RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(oil-sol. dye; water-thinned jet-printing inks with good water and light resistance and storage stability)

RN 119401-54-6 HCPLUS

CN Benzenesulfonamide, 4-[(1-butyl-5-cyano-1,6-dihydro-2-hydroxy-4-octyl-6-oxo-3-pyridinyl)azo]-N-octyl- (9CI) (CA INDEX NAME)



L35 ANSWER 3 OF 30 HCPLUS COPYRIGHT 2003 ACS

AN 2000:274631 HCPLUS

DN 132:315800

TI Electrophotographic color toner, method for manufacture thereof, electrophotographic developer containing same, method for image formation using same, and electrophotographic apparatus using same

IN Abe, Takao; Kida, Shuji; Yoshisawa, Tomomi; Haneta, Tetsu  
 PA Konica Co., Japan  
 SO Jpn. Kokai Tokkyo Koho, 31 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM G03G009-09  
 ICS G03G009-087; G03G015-08; G03G015-20  
 CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000122346	A2	20000428	JP 1998-299721	19981021
PRAI	JP 1998-299721		19981021		

AB The electrophotog. color toner has a binder **resin** and a coloring agent, wherein the coloring agent is made from a subliming or heat-diffusing dye of the  $\geq 600$  mol. wt. and of  $\geq 2$  g in 100 cc of methyl-ethyl-ketone at 100  $^{\circ}$ C. The addn. of the coloring agent in the toner provides an image of the excellent transparency, the superior hue, and the high light-resistance.

ST electrophotog toner coloring agent

IT Dyes

Electrophotographic apparatus

Electrophotographic developers

Electrophotographic toners

Electrophotography

(electrophotog. color toner, method for manuf. thereof, electrophotog. developer contg. same, method for image formation using same, and electrophotog. app. using same)

IT 4531-49-1, C.I. Pigment **Yellow** 17 67923-43-7 71812-03-8  
 109194-20-9 147919-79-7 167996-57-8 **265986-88-7**  
 265986-89-8 265986-90-1

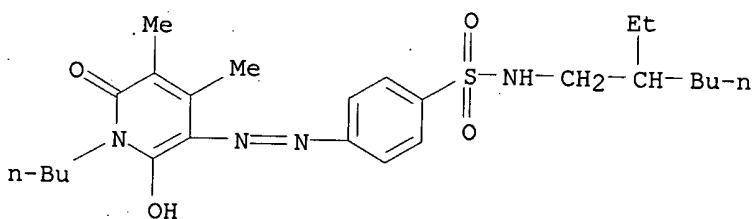
RL: TEM (Technical or engineered material use); USES (Uses)  
 (dye in colorant of electrophotog. toner)

IT **265986-88-7**

RL: TEM (Technical or engineered material use); USES (Uses)  
 (dye in colorant of electrophotog. toner)

RN 265986-88-7 HCPLUS

CN Benzenesulfonamide, 4-[(1-butyl-1,6-dihydro-2-hydroxy-4,5-dimethyl-6-oxo-3-pyridinyl)azo]-N-(2-ethylhexyl)- (9CI) (CA INDEX NAME)



L35 ANSWER 4 OF 30 HCPLUS COPYRIGHT 2003 ACS

AN 1997:600389 HCPLUS

DN 127:248443

TI Studies on **polymeric** dyes. Part V. The application of PPP-MO

method for **polymeric** dye monomers

AU Xin, Zhong; Pang, Xiaoyi; Huang, Deyin  
 CS East China Univ. Sci. Tech., Shanghai, 200237, Peop. Rep. China  
 SO Gongneng Gaofenzi Xuebao (1996), 9(4), 597-602  
 CODEN: GGXUEH; ISSN: 1004-9843

PB Huadong Huagong Xueyuan Chubanshe  
 DT Journal  
 LA Chinese  
 CC 35-2 (Chemistry of Synthetic High Polymers)  
 Section cross-reference(s): 41

AB The **absorption** spectra(.lambda.max) of PPP-MO calcns. and find for twelve **polymeric** colorant monomers were compared. The .lambda.max-find values exactly corresponds with .lambda.max-PPP calcd. values. This calcd. results about **pyridone azo** dye monomers conformed theor. that **azo pyridone** colorant monomers exist as a hydrazone form (azo tautomeric form). This results and PPP-MO parameters established a groundwork for designing the mol. structures of **polymeric** colorant monomers.

ST azo dye monomer MO **absorption**  
 IT Azo dyes  
 PPP (molecular orbital)  
 (application of PPP-MO method for calcn. of **absorption** spectra of **polymeric**-dye monomers)

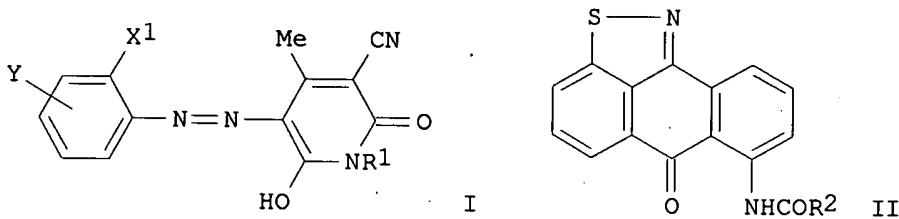
IT 110861-37-5 161187-28-6 184686-37-1 184686-38-2 184686-39-3  
 195887-94-6 195887-95-7 195887-96-8 195887-97-9 195887-98-0  
 195887-99-1 195888-00-7

RL: PRP (Properties)  
 (application of PPP-MO method for calcn. of **absorption** spectra of **polymeric**-dye monomers)

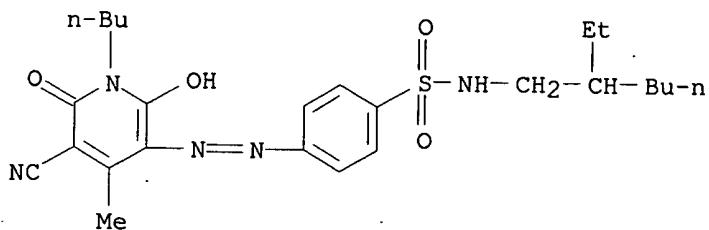
L35 ANSWER 5 OF 30 HCPLUS COPYRIGHT 2003 ACS *Full*  
 AN 1996:248325 HCPLUS  
 DN 124:319592  
 TI **Yellow** dye compositions containing pyridones and isothiazoleanthrones and dyeing of hydrophobic materials with the compositions  
 IN Katsuta, Osayuki; Yabushita, Shinichi; Hashizume, Shuhei  
 PA Sumitomo Chemical Co, Japan  
 SO Jpn. Kokai Tokkyo Koho, 7 pp.  
 CODEN: JKXXAF

DT Patent  
 LA Japanese  
 IC ICM C09B067-22  
 ICS D06P003-54  
 CC 40-6 (Textiles and Fibers)  
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 08034933	A2	19960206	JP 1994-169759	19940721
PRAI JP 1994-169759		19940721		
OS MARPAT 124:319592				
GI				



AB	The title compns. with good build up, leveling properties, reproducibility, and light fastness, contain pyridones I [X1 = H, halo, cyano, NO <sub>2</sub> ; Y = H, halo, phenylsulfonyloxy, (C1-4 alkyl)aminosulfonyloxy, C1-4 alkoxy-C1-4 alkoxy-C1-4 alkoxy carbonyl, C1-8 linear or branched alkylaminosulfonyl, C1-8 linear or branched alkylaminocarbonyl, NO <sub>2</sub> , (5- or 6-membered O-contg. cycloalkyl-substituted)C1-4 alkoxy carbonyl, phenoxy-C1-4-alkoxy carbonyl; R1 = H, C1-8 linear or branched alkyl, (Ph-substituted)amino] and isothiazoleanthrones II [R2 = (un)substituted C1-4 alkyl, C1-4 alkoxy, Ph]. An aq. dispersion of I (R1 = Et; X1 = Cl; Y = 4-nitro) 150, II (R2 = Ph) 150, Na naphthalenesulfonate-HCHO adduct 300, and ligninsulfonic acid 350 g was spray dried to give a <b>yellow</b> disperse dye compn.
ST	<b>yellow</b> disperse dye pyridone isothiazoleanthrone mixt; light fastness <b>yellow</b> dye isothiazoleanthrone pyridone; anthrone isothiazole pyridone <b>yellow</b> dye mixt
IT	Polyester fibers, miscellaneous RL: MSC (Miscellaneous) (lightfast <b>yellow</b> dye compns. contg. pyridones and isothiazoleanthrones for dyeing of)
IT	Dyeing (lightfast <b>yellow</b> dye compns. contg. pyridones and isothiazoleanthrones for dyeing of hydrophobic materials)
IT	Dyes (disperse, lightfast <b>yellow</b> dye compns. contg. pyridones and isothiazoleanthrones for use on hydrophobic materials)
IT	5124-25-4 10116-20-8 17309-84-1 30449-81-1 49744-25-4 49744-26-5 50988-01-7 50988-02-8 <b>55290-62-5</b> 59312-61-7 67338-59-4 68214-64-2 88009-97-6 88938-37-8 131801-29-1 175414-36-5 175414-38-7 175874-56-3 175874-57-4 RL: NUU (Other use, unclassified); PRP (Properties); TEM (Technical or engineered material use); USES (Uses) (in compns. for dyeing hydrophobic materials in lightfast <b>yellow</b> shades)
IT	<b>55290-62-5</b> RL: NUU (Other use, unclassified); PRP (Properties); TEM (Technical or engineered material use); USES (Uses) (in compns. for dyeing hydrophobic materials in lightfast <b>yellow</b> shades)
RN	55290-62-5 HCAPLUS
CN	Benzenesulfonamide, 4-[(1-butyl-5-cyano-1,6-dihydro-2-hydroxy-4-methyl-6-oxo-3-pyridinyl)azo]-N-(2-ethylhexyl)- (9CI) (CA INDEX NAME)



L35 ANSWER 6 OF 30 HCAPLUS COPYRIGHT 2003 ACS  
 AN 1992:237354 HCAPLUS  
 DN 116:237354  
 TI Organic materials having sulfonamide-linked polyoxyalkylene moieties and their preparation  
 IN Kluger, Edward William; Harris, Jeffery Reed; Weaver, Max Allen; Moody, David Jesse  
 PA Milliken Research Corp., USA  
 SO Eur. Pat. Appl., 72 pp.  
 CODEN: EPXXDW  
 DT Patent  
 LA English  
 IC ICM C09B069-10  
 ICS C08G065-32  
 ICA C08K005-00  
 CC 41-3 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)  
 Section cross-reference(s): 35 PMM  
 FAN.CNT 1  

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI EP 445926	A2	19910911	EP 1991-301134	19910212
EP 445926	A3	19911106		
EP 445926	B1	19960821		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE				
AT 141635	E	19960915	AT 1991-301134	19910212
ES 2093073	T3	19961216	ES 1991-301134	19910212
JP 07010984	A2	19950113	JP 1991-154157	19910311
JP 3187452	B2	20010711		
US 5240464	A	19930831	US 1992-896508	19920602
PRAI US 1990-491419	A	19900309		

  
 AB The properties of metal-free org. compds. having 1-6 sulfonyl halide or sulfonate ester groups are modified by reaction with polyoxyalkylenes bearing 1-6 amine groups, .gt;eq. 50% of the oxyalkylene groups being C2-4. Colorants with improved solv. or compatibility are thus prep'd. Thus, 4-AcNH<sub>2</sub>C<sub>6</sub>H<sub>4</sub>SO<sub>2</sub>Cl was added slowly to a soln. of Jeffamine M-600 in aq. Na<sub>2</sub>CO<sub>3</sub>, and the product was deacetylated, diazotized, and coupled with PhN(CH<sub>2</sub>CH<sub>2</sub>OH)<sub>2</sub> to give an orange liq. sol. in CH<sub>2</sub>Cl<sub>2</sub>.  
 ST azo dye polyoxyalkylene deriv; arom sulfonamide polyoxyalkylene deriv  
 IT Polyoxyalkylenes, uses  
 RL: USES (Uses)  
 (with colored terminal groups, as liq. or sol. dyes and pigm.  
 IT Dyes  
 Dyes, anthraquinone  
 Dyes, azo  
 Pigments

(with polyoxyalkylene groups, sulfonamide-linked, with increased solv.)

IT 136-95-8, 2-Aminobenzothiazole  
 RL: USES (Uses)  
 (acetylation and coupling of diazotized, with  
 [(ethylanilino)methyl]benzenesulfonamido-terminated polyoxyalkylene)

IT 87-60-5, 3-Chloro-2-methylaniline 120-71-8, 2-Methoxy-5-methylaniline  
 25660-71-3  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (acetylation of)

IT 81-39-0 91-73-6, N,N-Dibenzylaniline 92-15-9, o-Acetoacetaniside  
 92-59-1, N-Benzyl-N-ethylaniline 96-43-5, 2-Chlorothiophene 128-80-3,  
 1,4-Di-p-toluidinoanthraquinone 4735-73-3, N-Ethyl-N-(2-phenoxyethyl)-m-  
 toluidine 6408-72-6, 1,4-Diamino-2,3-diphenoxanthraquinone  
 17418-58-5, 1-Amino-4-hydroxy-2-phenoxyanthraquinone  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (chlorosulfonation of)

IT 1008-72-6, Sodium o-formylbenzenesulfonate  
 RL: USES (Uses)  
 (condensation of, with [(ethylanilino)methyl]benzenesulfonamido-  
 terminated polyoxyalkylene)

IT 39423-51-3, Jeffamine T 403 65605-36-9, Jeffamine ED 600 77110-54-4,  
 Jeffamine M 600 83713-01-3, Jeffamine M 1000 125176-11-6  
 RL: USES (Uses)  
 (condensation of, with acetamidobenzenesulfonyl chloride)

IT 121-51-7, m-Nitrobenzenesulfonyl chloride 121-60-8; 4-  
 Acetamidobenzenesulfonyl chloride 671-89-6, 4-Amino-6-chloro-1,3-  
 benzenedisulfonyl chloride 22837-20-3, 6-Hydroxy-2-naphthalenesulfonyl  
 chloride 40495-69-0 134479-01-9, 2,4-Dihydroxybenzenesulfonyl chloride  
 139600-99-0 139601-00-6 139601-02-8, 2-[4-(Chlorosulfonyl)phenyl]-1-  
 methylindole  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (condensation of, with amine-terminated polyoxyalkylenes)

IT 105-56-6, Ethyl cyanoacetate 74228-25-4, 3-(Dicyanomethylene)-2,3-  
 dihydrobenzo[b]thiophene 1,1-dioxide  
 RL: USES (Uses)  
 (condensation of, with formylphenyl-terminated polyoxyalkylene)

IT 109-77-3, Malononitrile  
 RL: USES (Uses)  
 (condensation of, with formyltoluidino-terminated polyoxyalkylene)

IT 7692-89-9, 3-Cyano-4-phenyl-2(5H)-furanone  
 RL: USES (Uses)  
 (condensation of, with nitrosophenyl-terminated polyoxyalkylene)

IT 100-10-7, p-(Dimethylamino)benzaldehyde 138-89-6, N,N-Dimethyl-4-  
 nitroaniline  
 RL: USES (Uses)  
 (condensation of, with pyridinedione polyoxyalkylene deriv.)

IT 121-87-9, 2-Chloro-4-nitroaniline 2307-00-8, 4-Amino-N-methylphthalimide  
 52603-48-2  
 RL: USES (Uses)  
 (coupling of diazotized, with [(ethylanilino)methyl]benzenesulfonamido-  
 terminated polyoxyalkylene)

IT 96-50-4, 2-Aminothiazole 17467-15-1  
 RL: USES (Uses)  
 (coupling of diazotized, with [(phenylimino)bis(methylene)]bis[benzenes  
 ulfonamide]-terminated polyoxyalkylene)

IT 17420-30-3, 2-Cyano-4-nitroaniline  
 RL: USES (Uses)  
 (coupling of diazotized, with acetoacetanilide-terminated

polyoxyalkylene)

IT 1747-60-0, 2-Amino-6-methoxybenzothiazole  
 RL: USES (Uses)  
 (coupling of diazotized, with aniline polyoxyalkylene deriv.)

IT 136919-38-5  
 RL: USES (Uses)  
 (coupling of diazotized, with pyridinedione polyoxyalkylene deriv.)

IT 97-35-8, 3-Amino-N,N-diethyl-4-methoxybenzenesulfonamide  
 RL: USES (Uses)  
 (coupling of diazotized, with resorcinol-terminated polyoxyalkylene)

IT 4815-30-9, Diethyl 5-amino-3-methylthiophene-2,4-dicarboxylate  
 RL: USES (Uses)  
 (coupling of diazotized, with toluidino-terminated polyoxyalkylene)

IT 53350-33-7, 1,2,3,4-Tetrahydro-1-(2-hydroxyethyl)-2,2,4-trimethylquinoline  
 139604-01-6, Ethoxylated m-anisidine  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (coupling of, with diazotized aminobenzene-disulfonamide polyoxyalkylene deriv.)

IT 84-57-1 92-77-3, Naphthol AS 93-01-6, 6-Hydroxy-2-naphthalenesulfonic acid 118-47-8 120-07-0, Phenyl diethanolamine 135-19-3, 2-Naphthol, reactions 36356-82-8, Ethoxylated m-toluidine 36356-83-9 39108-47-9 53817-44-0 58374-22-4, Ethoxylated m-chloroaniline 139600-93-4, 1-(2-Hydroxyethyl)-2-phenylindole 140115-42-0  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (coupling of, with diazotized aminobenzene-sulfonamido-terminated polyoxyalkylene)

IT 68240-15-3, Ethoxylated 2,5-dimethoxyaniline  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (coupling of, with diazotized aminobenzothiazole polyoxyalkylene deriv.)

IT 140115-18-0P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (prepn. and amination of)

IT 3028-06-6P, 2-Acetamido-benzothiazole 6962-44-3P, 2'-Methoxy-5'-methylacetanilide 7463-35-6P, 3'-Chloro-2'-methylacetanilide 64387-67-3P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (prepn. and chlorosulfonation of)

IT 140115-29-3P  
 RL: IMF (Industrial manufacture); PREP (Preparation)  
 (prepn. and condensation with Et cyanoacetate)

IT 18122-67-3P 68039-14-5P, 4-Acetamido-5-methoxy-2-methylbenzenesulfonyl chloride 86806-70-4P, 5-Chloro-2,4-thiophenedisulfonyl chloride 139600-94-5P, 4-Acetamido-2-chloro-3-methylbenzenesulfonyl chloride 139600-95-6P, 3-[(Ethylphenylamino)methyl]benzenesulfonyl chloride 139600-96-7P 139600-97-8P 139600-98-9P, 3-Acetoacetamido-4-methoxybenzenesulfonyl chloride 139601-01-7P, 2-Acetamido-6-benzothiazolesulfonyl chloride 139601-03-9P 139601-04-0P 139612-41-2P 139615-20-6P  
 RL: IMF (Industrial manufacture); PREP (Preparation)  
 (prepn. and condensation with amine-terminated polyoxyalkylenes)

IT 140115-31-7P  
 RL: IMF (Industrial manufacture); PREP (Preparation)  
 (prepn. and condensation with cyanophenylfuranone)

IT 139874-05-8P  
 RL: IMF (Industrial manufacture); PREP (Preparation)

(prepn. and condensation with malononitrile)

IT 140115-24-8P  
 RL: IMF (Industrial manufacture); PREP (Preparation)  
 (prepn. and condensation with sulfolane deriv.)

IT 140115-10-2P 140115-37-3P 140115-40-8P  
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT  
 (Reactant or reagent)  
 (prepn. and coupling with diazotized aminobenzenesulfonamido-terminated  
 polyoxyalkylene)

IT 140115-11-3P  
 RL: IMF (Industrial manufacture); PREP (Preparation)  
 (prepn. and coupling with diazotized aminodiethylmethoxybenzenesulfonam  
 ide)

IT 139604-02-7P  
 RL: IMF (Industrial manufacture); PREP (Preparation)  
 (prepn. and coupling with diazotized aminomethoxybenzothiazole)

IT 139614-94-1P  
 RL: IMF (Industrial manufacture); PREP (Preparation)  
 (prepn. and coupling with diazotized aminophenylthiazole)

IT 140115-41-9P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
 (Reactant or reagent)  
 (prepn. and hydrogenation of)

IT 134331-96-7P 139614-89-4P 139614-91-8P 139614-93-0P 139614-96-3P  
 139614-98-5P  
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT  
 (Reactant or reagent)  
 (prepn. and hydrolysis of)

IT 140115-00-0P 140115-27-1P 140115-30-6P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
 (Reactant or reagent)  
 (prepn. and reaction of)

IT 140114-82-5P 140115-32-8P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
 (Reactant or reagent)  
 (prepn. and reactions of)

IT 140114-85-8P 140115-33-9P  
 RL: IMF (Industrial manufacture); PREP (Preparation)  
 (prepn. of liq.)

IT 139873-96-4P 140115-01-1P 140115-21-5P  
 RL: IMF (Industrial manufacture); PREP (Preparation)  
 (prepn. of liq., as blue colorant)

IT 140115-22-6P  
 RL: IMF (Industrial manufacture); PREP (Preparation)  
 (prepn. of liq., as green colorant)

IT 139614-99-6P 139615-00-2P 139615-02-4P 139642-58-3P 139873-97-5P  
 140114-77-8P 140114-89-2P 140114-92-7P 140114-95-0P 140114-96-1P  
 140115-07-7P 140115-09-9P 140115-26-0P 140115-28-2P 140115-35-1P  
 140115-36-2P 140115-43-1P  
 RL: IMF (Industrial manufacture); PREP (Preparation)  
 (prepn. of liq., as orange colorant)

IT 139614-95-2P 139614-97-4P 139615-01-3P 140114-79-0P 140114-87-0P  
 140114-88-1P 140114-91-6P 140114-93-8P 140114-98-3P 140114-99-4P  
 140115-08-8P 140115-17-9P 140115-19-1P 140115-25-9P 140115-39-5P  
 141482-62-4P 141552-12-7P  
 RL: IMF (Industrial manufacture); PREP (Preparation)  
 (prepn. of liq., as red colorant)

IT 140114-90-5P 140115-02-2P 140115-04-4P 140115-06-6P 140115-15-7P

140115-16-8P 140115-20-4P  
 RL: IMF (Industrial manufacture); PREP (Preparation)  
 (prepn. of liq., as violet colorant)

IT 140114-94-9P **140114-97-2P** 140115-03-3P 140115-05-5P  
 140115-23-7P 140115-34-0P 140115-38-4P 140206-89-9P 140206-90-2P  
 140206-91-3P 140206-92-4P 140206-93-5P  
 RL: IMF (Industrial manufacture); PREP (Preparation)  
 (prepn. of liq., as **yellow** colorant)

IT 140114-84-7P  
 RL: IMF (Industrial manufacture); PREP (Preparation)  
 (prepn. of, as dye intermediate)

IT 140114-81-4P 140114-83-6P 140114-86-9P 140115-12-4P 140115-13-5P  
 RL: IMF (Industrial manufacture); PREP (Preparation)  
 (prepn., diazotization and coupling of)

IT 140114-76-7P 140114-78-9P 140114-80-3P  
 RL: IMF (Industrial manufacture); PREP (Preparation)  
 (prepn., diazotization and coupling of, in prepn. of liq. colorants)

IT 139614-87-2P  
 RL: IMF (Industrial manufacture); PREP (Preparation)  
 (prepn., diazotization and coupling with ethoxylated aniline)

IT 139614-90-7P  
 RL: IMF (Industrial manufacture); PREP (Preparation)  
 (prepn., diazotization and coupling with ethoxylated anisidine)

IT 139614-92-9P  
 RL: IMF (Industrial manufacture); PREP (Preparation)  
 (prepn., diazotization and coupling with ethoxylated toluidine)

IT 140115-14-6P  
 RL: IMF (Industrial manufacture); PREP (Preparation)  
 (prepn., diazotization and coupling with tetrahydroquinoline deriv.)

IT 139614-88-3P  
 RL: IMF (Industrial manufacture); PREP (Preparation)  
 (prepn., hexaazotization and coupling with ethoxylated aniline)

IT 139873-94-2P  
 RL: IMF (Industrial manufacture); PREP (Preparation)  
 (prepn., tetraazotization and coupling with ethoxylated aniline)

IT 2785-06-0, 2-Methylbenzothiazole methiodide  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (reaction of, with formylanilino-terminated polyoxyalkylene)

IT 118-12-7, 1,3,3-Trimethyl-2-methyleneindoline  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (reaction of, with formyltoluidino-terminated polyoxyalkylene)

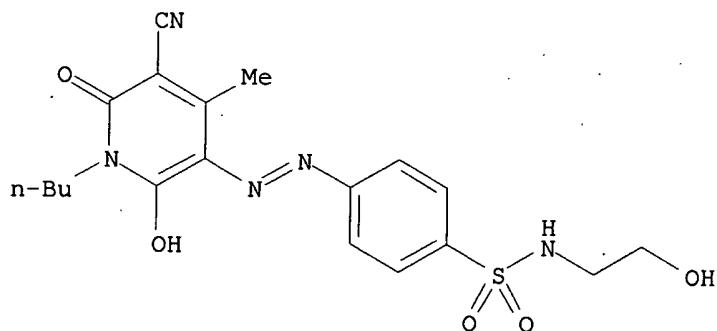
IT **140114-97-2P**  
 RL: IMF (Industrial manufacture); PREP (Preparation)  
 (prepn. of liq., as **yellow** colorant)

RN 140114-97-2 HCPLUS

CN Oxirane, methyl-, polymer with oxirane, 2-[[[4-[(1-butyl-5-cyano-1,6-dihydro-2-hydroxy-4-methyl-6-oxo-3-pyridinyl)azo]phenyl]sulfonyl]amino]methyl ethyl methyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 177072-63-8  
 CMF C20 H25 N5 O5 S  
 CCI IDS



D1—Me

CM 2

CRN 67-56-1

CMF C H4 O

H3C—OH

CM 3

CRN 9003-11-6

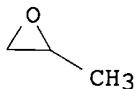
CMF (C3 H6 O . C2 H4 O)x

CCI PMS

CM 4

CRN 75-56-9

CMF C3 H6 O



CM 5

CRN 75-21-8

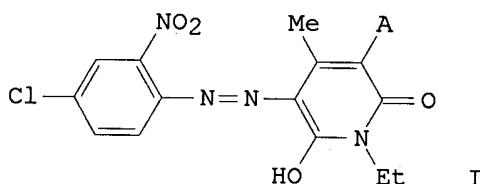
CMF C2 H4 O



L35 ANSWER 7 OF 30 HCAPLUS COPYRIGHT 2003 ACS  
 AN 1991:44875 HCAPLUS  
 DN 114:44875  
 TI Disperse dye compositions for dyeing or printing hydrophobic fabrics  
 IN Ueda, Yasuyoshi; Sekihachi, Junichi; Omura, Takashi; Hattori, Hideo;  
 Nakatsuka, Kiyoharu  
 PA Sumitomo Chemical Co., Ltd., Japan  
 SO Eur. Pat. Appl., 37 pp.  
 CODEN: EPXXDW  
 DT Patent  
 LA English  
 IC ICM C09B067-22  
 ICS C09B029-42; D06P001-18  
 CC 40-6 (Textiles and Fibers)  
 Section cross-reference(s): 41

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 378167	A1	19900718	EP 1990-100367	19900109
	EP 378167	B1	19941228		
	R: BE, CH, DE, ES, FR, GB, IT, LI, NL, SE				
	JP 02185567	A2	19900719	JP 1989-4296	19890110
	JP 02185568	A2	19900719	JP 1989-4297	19890110
	US 5038415	A	19910813	US 1990-462738	19900109
	ES 2066015	T3	19950301	ES 1990-100367	19900109
PRAI	JP 1989-4296		19890110		
	JP 1989-4297		19890110		
OS	MARPAT 114:44875				
GI					



AB The title dye mixts. comprise (A) (nitrophenylazo)hydroxymethylpyridone dyes (B) (nitrophenylazo)cyanohydroxymethylpyridone dyes, and, optionally, (C) quinophthalone dyes. These mixts. are useful for dyeing or printing on hydrophobic fiber materials and have superior dye bath stability and level dyeing properties. Thus, a mixt. of I (A = H) 9, I (A = CN) 21, formalin-naphthalenesulfonic acid condensate 70, and water 150 parts was treated for 10 h in a sand mill to obtain a desired disperse dye compn. in the form of a dispersion liq., which was useful for dyeing polyester cloth in a brilliant, deep, fast greenish-yellow shade.

ST disperse dye compn manuf; textile printing disperse dye mixt; polyester fiber dyeing disperse mixt; azo disperse dye mixt; quinophthalone disperse dye mixt manuf

IT Dyeing  
 (of hydrophobic fibers, disperse dye mixts. for)

IT Textile printing  
 (on hydrophobic fibers, disperse dye mixts. for)

IT Dyes  
 Dyes, azo

(disperse, manuf. of mixts. contg., for hydrophobic fibers)

IT 827-33-8, 4-Bromo-5-chloro-2-nitroaniline  
 RL: USES (Uses)  
 (coupling of diazotized, with dimethylcyanohydroxypyridone)

IT 6641-64-1, 4,5-Dichloro-2-nitroaniline  
 RL: USES (Uses)  
 (coupling of diazotized, with dimethylhydroxypyridone)

IT 6972-71-0, 4,5-Dimethyl-2-nitroaniline  
 RL: USES (Uses)  
 (coupling of diazotized, with ethylhydroxymethylpyridone)

IT 27074-03-9  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (coupling of, with diazotized bromochloronitroaniline)

IT 39120-58-6, 1,4-Dimethyl-6-hydroxy-2-pyridone  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (coupling of, with diazotized dichloronitroaniline)

IT 31643-63-7  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (coupling of, with diazotized dimethylnitroaniline)

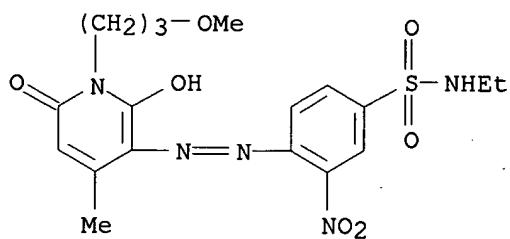
IT 7576-65-0 9017-33-8 10319-14-9 12217-80-0, C.I. Disperse Blue 60  
 17418-58-5, C.I. Disperse Red 60 31810-89-6, Sumikaron Blue E-FBL  
 41642-51-7, C.I. Disperse Blue 165 51249-07-1 57258-91-0 67355-51-5  
 68992-01-8 70528-90-4 73287-55-5 74832-42-1 78333-76-3  
 87617-01-4 99035-78-6, C.I. Disperse Red 343 104482-16-8 106044-53-5  
 106044-63-7 106044-72-8 **117208-04-5** 117208-06-7  
 117208-14-7 117208-17-0 117208-18-1 117208-22-7 117208-28-3  
 117208-29-4 117208-33-0 117208-45-4 117208-63-6 117490-07-0  
 117509-68-9 117509-69-0 118378-89-5 118378-90-8 118379-10-5  
 118379-11-6 118379-12-7 118379-16-1 118379-44-5 118379-61-6  
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 131578-82-0 131578-83-1 131578-84-2 131578-85-3 131578-86-4  
 131601-42-8 131601-43-9 131601-44-0 131601-45-1 131601-46-2  
 RL: USES (Uses)  
 (disperse dye mixts. contg., for hydrophobic fibers)

IT 87-69-4, Tartaric acid, uses and miscellaneous  
 RL: USES (Uses)  
 (printing paste contg. disperse dye mixts. with, for hydrophobic fibers)

IT **117208-04-5 131578-28-4**  
 RL: USES (Uses)  
 (disperse dye mixts. contg., for hydrophobic fibers)

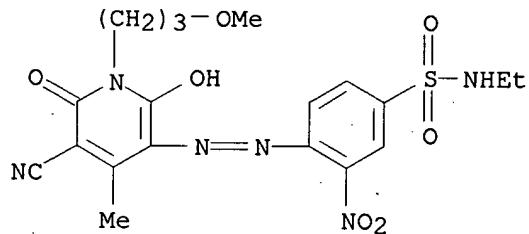
RN 117208-04-5 HCPLUS

CN Benzenesulfonamide, 4-[[1,6-dihydro-2-hydroxy-1-(3-methoxypropyl)-4-methyl-6-oxo-3-pyridinyl]azo]-N-ethyl-3-nitro- (9CI) (CA INDEX NAME)



RN 131578-28-4 HCAPLUS

CN Benzenesulfonamide, 4-[[5-cyano-1,6-dihydro-2-hydroxy-1-(3-methoxypropyl)-4-methyl-6-oxo-3-pyridinyl]azo]-N-ethyl-3-nitro- (9CI) (CA INDEX NAME)



L35 ANSWER 8 OF 30 HCAPLUS COPYRIGHT 2003 ACS

AN 1989:116891 HCAPLUS

DN 110:116891

TI Yellow oil-based inks for ink-jet printing

IN Tabayashi, Isao; Harada, Hiroshi; Inoue, Sadahiro; Fukutomi, Hiroshi

PA Dainippon Ink and Chemicals, Inc., Japan

SO Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C09D011-00

ICS C09B029-42; C09D011-00; C09D011-02

CC 42-12 (Coatings, Inks, and Related Products)

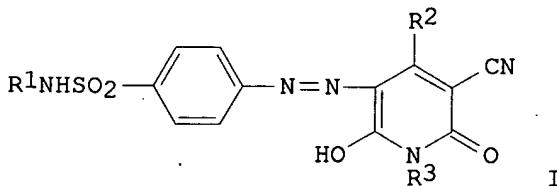
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 63193975	A2	19880811	JP 1987-26027	19870206
	JP 07078188	B4	19950823		

PRAI JP 1987-26027 19870206

OS MARPAT 110:116891

GI



AB Storage-stable title inks with improved printability contain yellow dyes I (R1 = C1-20 alkyl, C1-20 alkylene; R2-3 = C1-12 alkyl, C1-12 alkylene). Thus, I (R1 = Bu, R2 = n-C<sub>8</sub>H<sub>17</sub>, R3 = Et) 2.0, phenethylcumene 70.0, and N-methylacetamide 28.0% were mixed and filtered to give title ink storable >6 mo at room temp.

ST yellow oil based ink durability; oil based ink storage stability; azo dye ink jet printing

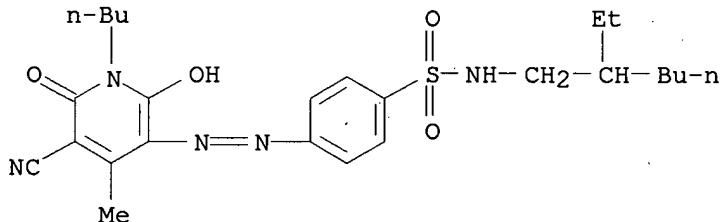
IT Inks  
(oil-based, contg. azo dyes, with improved storage stability)

IT 55290-62-5 119401-52-4 119401-53-5  
119401-54-6 119401-55-7 119401-56-8  
RL: USES (Uses)  
(dye, yellow, oil-based inks contg., with improved storage stability, for ink-jet printing)

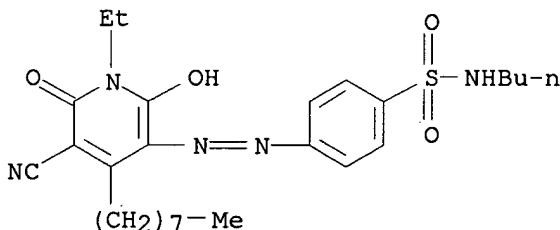
IT 55290-62-5 119401-52-4 119401-53-5  
119401-54-6 119401-55-7 119401-56-8  
RL: USES (Uses)  
(dye, yellow, oil-based inks contg., with improved storage stability, for ink-jet printing)

RN 55290-62-5 HCAPLUS

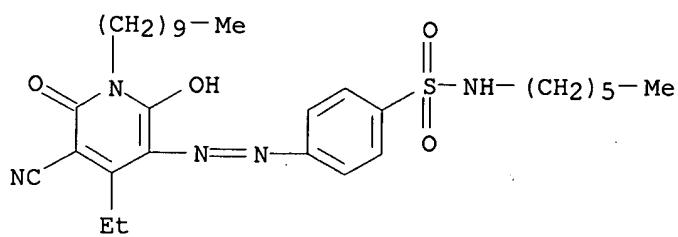
CN Benzenesulfonamide, 4-[(1-butyl-5-cyano-1,6-dihydro-2-hydroxy-4-methyl-6-oxo-3-pyridinyl)azo]-N-(2-ethylhexyl)- (9CI) (CA INDEX NAME)



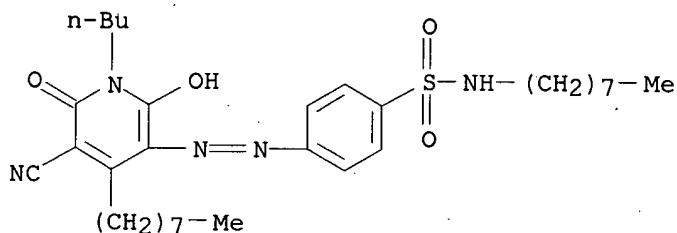
RN 119401-52-4 HCAPLUS  
CN Benzenesulfonamide, N-butyl-4-[(5-cyano-1-ethyl-1,6-dihydro-2-hydroxy-4-octyl-6-oxo-3-pyridinyl)azo]- (9CI) (CA INDEX NAME)



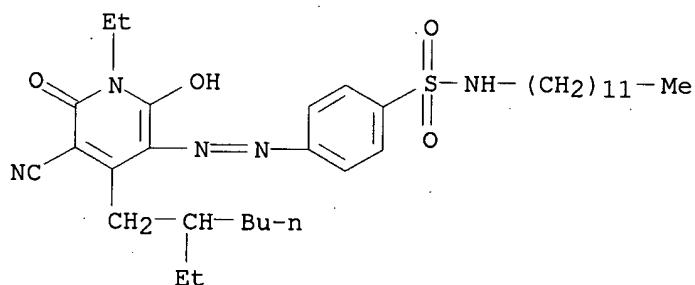
RN 119401-53-5 HCAPLUS  
CN Benzenesulfonamide, 4-[(5-cyano-1-decyl-4-ethyl-1,6-dihydro-2-hydroxy-6-oxo-3-pyridinyl)azo]-N-hexyl- (9CI) (CA INDEX NAME)



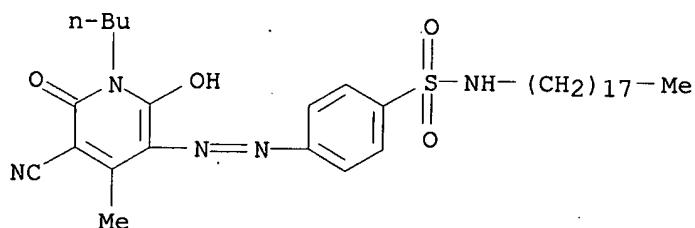
RN 119401-54-6 HCPLUS  
 CN Benzenesulfonamide, 4-[(1-butyl-5-cyano-1,6-dihydro-2-hydroxy-4-octyl-6-oxo-3-pyridinyl)azo]-N-octyl- (9CI) (CA INDEX NAME)



RN 119401-55-7 HCPLUS  
 CN Benzenesulfonamide, 4-[(5-cyano-1-ethyl-4-(2-ethylhexyl)-1,6-dihydro-2-hydroxy-6-oxo-3-pyridinyl)azo]-N-dodecyl- (9CI) (CA INDEX NAME)



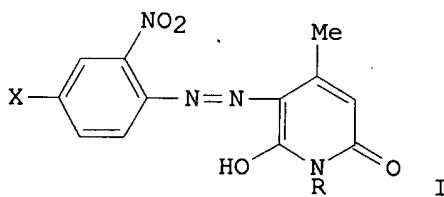
RN 119401-56-8 HCPLUS  
 CN Benzenesulfonamide, 4-[(1-butyl-5-cyano-1,6-dihydro-2-hydroxy-4-methyl-6-oxo-3-pyridinyl)azo]-N-octadecyl- (9CI) (CA INDEX NAME)



L35 ANSWER 9 OF 30 HCAPLUS COPYRIGHT 2003 ACS  
 AN 1989:40491 HCAPLUS  
 DN 110:40491  
 TI Yellow-green to orange monoazo pyridone dyes for hydrophobic fibers  
 IN Nishikuri, Masao; Hashimoto, Kiyoyasu; Hattori, Hideo  
 PA Sumitomo Chemical Co., Ltd., Japan  
 SO Ger. Offen., 14 pp.  
 CODEN: GWXXBX  
 DT Patent  
 LA German  
 IC ICM C09B029-42  
 ICS D06P001-18  
 ICA D06P003-26; D06P003-54; D06P003-60; D06P003-82; C09D011-02  
 CC 41-3 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)  
 Section cross-reference(s): 40

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 3804103	A1	19880825	DE 1988-3804103	19880210
	JP 63199760	A2	19880818	JP 1987-32784	19870216
	JP 08019626	B4	19960228		
	JP 63199762	A2	19880818	JP 1987-32786	19870216
	JP 2556693	B2	19961120		
	JP 63199763	A2	19880818	JP 1987-35181	19870217
	JP 08023112	B4	19960306		
	JP 63199764	A2	19880818	JP 1987-35182	19870217
	JP 08023113	B4	19960306		
	GB 2201962	A1	19880914	GB 1988-1795	19880127
	GB 2201962	B2	19910102		
	US 4826505	A	19890502	US 1988-153790	19880208
	CH 674361	A	19900531	CH 1988-537	19880215
PRAI	JP 1987-32784		19870216		
	JP 1987-32786		19870216		
	JP 1987-35181		19870217		
	JP 1987-35182		19870217		
OS	CASREACT 110:40491; MARPAT 110:40491				
GI					



AB The title compds. I (R = alkyl, alkenyl, cycloalkyl, PhNH, Ph; X = H, halogen, alkyl, alkoxy, alkylcarbonyl, alkoxy carbonyl, arylalkoxycarbonyl, alkylsulfonyl, arylsulfonyl, carbamoyl, sulfamoyl, CN), useful for dyeing or printing of hydrophobic fibers, esp. polyester fibers, are prep'd. 4-Bromo-2-nitroaniline was diazotized and coupled with 1-ethyl-6-hydroxy-4-methyl-2-pyridone, forming I (R = Et, X = Br),

.lambda.max (DMF) 432 nm, which produced a fast green-yellow shade on polyester fabrics.

ST monoazo pyridone hydrophobic fiber dye; textile printing pyridone azo dye

IT Dyes, azo  
(nitrophenylazo)hydroxymethylpyridones, manuf. of, for hydrophobic fibers)

IT Polyester fibers, uses and miscellaneous  
RL: USES (Uses)  
(dyes for, (nitrophenylazo)hydroxymethylpyridones as)

IT Textile printing  
(on hydrophobic fibers, (nitrophenylazo)hydroxymethylpyridone dyes for)

IT 89-62-3, 4-Methyl-2-nitroaniline  
RL: USES (Uses)  
(coupling of diazotized, with cyclohexylhydroxymethylpyridone)

IT 88-74-4, 2-Nitroaniline 89-62-3, 4-Methyl-2-nitroaniline  
RL: USES (Uses)  
(coupling of diazotized, with dimethylhydroxypyridone)

IT 875-51-4, 4-Bromo-2-nitroaniline 3663-35-2, 4-Ethyl-2-nitroaniline  
RL: USES (Uses)  
(coupling of diazotized, with ethylhydroxymethylpyridone)

IT 875-51-4, 4-Bromo-2-nitroaniline  
RL: USES (Uses)  
(coupling of diazotized, with propylhydroxymethylpyridone)

IT 31643-63-7 105037-61-4  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(coupling of, with diazotized bromonitroaniline)

IT 31643-74-0  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(coupling of, with diazotized methylnitroaniline)

IT 39120-58-6 59994-06-8 118379-07-0  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(coupling of, with diazotized nitroaniline)

IT 118378-86-2P 118378-87-3P 118378-88-4P 118378-89-5P 118378-90-8P  
118378-91-9P 118378-92-0P 118378-93-1P 118378-94-2P 118378-95-3P  
118378-96-4P 118378-97-5P **118378-98-6P 118378-99-7P**  
118379-00-3P 118379-01-4P 118379-82-1P 118379-83-2P 118400-72-9P  
RL: PREP (Preparation)  
(manuf. of, as dye for hydrophobic fibers)

IT 87570-87-4P 87570-88-5P 118378-83-9P 118378-84-0P 118378-85-1P  
118379-02-5P 118379-03-6P 118379-04-7P 118379-05-8P 118379-06-9P  
118379-08-1P 118379-09-2P 118379-10-5P 118379-11-6P 118379-12-7P  
118379-13-8P 118379-14-9P 118379-15-0P 118379-16-1P 118379-17-2P  
118379-18-3P 118379-19-4P 118379-20-7P 118379-21-8P 118379-22-9P  
118379-23-0P 118379-24-1P 118379-25-2P 118379-26-3P 118379-27-4P  
118379-28-5P 118379-29-6P 118379-30-9P 118379-31-0P 118379-32-1P  
**118379-33-2P 118379-34-3P** 118379-35-4P 118379-36-5P  
118379-37-6P 118379-38-7P 118379-39-8P 118379-40-1P 118379-41-2P  
118379-42-3P 118379-43-4P 118379-44-5P 118379-45-6P  
**118379-46-7P 118379-47-8P** 118379-48-9P 118379-49-0P  
118379-50-3P 118379-51-4P 118379-52-5P 118379-53-6P 118379-54-7P  
118379-55-8P 118379-56-9P 118379-57-0P 118379-58-1P 118379-59-2P  
118379-60-5P 118379-61-6P 118379-62-7P 118379-63-8P 118379-64-9P  
118379-65-0P 118379-66-1P **118379-67-2P 118379-68-3P**  
118379-69-4P 118379-70-7P 118379-71-8P 118379-72-9P 118379-73-0P  
118379-74-1P 118379-75-2P 118379-76-3P 118379-77-4P 118379-78-5P  
118379-79-6P 118379-80-9P 118379-81-0P 118400-73-0P  
RL: PREP (Preparation)  
(manuf. of, as yellow dye for hydrophobic fibers)

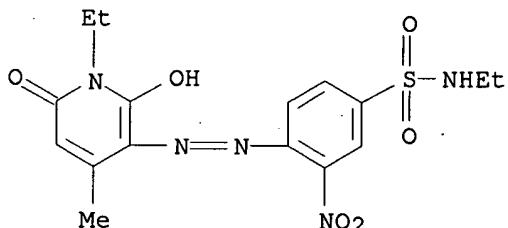
IT 118378-98-6P 118378-99-7P

RL: PREP (Preparation)

(manuf. of, as dye for hydrophobic fibers)

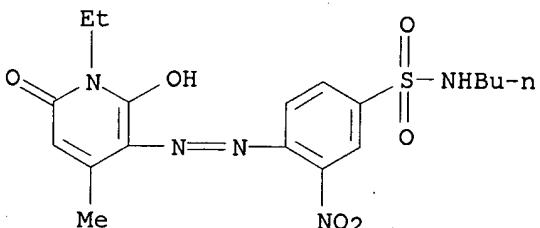
RN 118378-98-6 HCAPLUS

CN Benzenesulfonamide, N-ethyl-4-[(1-ethyl-1,6-dihydro-2-hydroxy-4-methyl-6-oxo-3-pyridinyl)azo]-3-nitro- (9CI) (CA INDEX NAME)



RN 118378-99-7 HCAPLUS

CN Benzenesulfonamide, N-butyl-4-[(1-ethyl-1,6-dihydro-2-hydroxy-4-methyl-6-oxo-3-pyridinyl)azo]-3-nitro- (9CI) (CA INDEX NAME)



IT 118379-33-2P 118379-34-3P 118379-46-7P

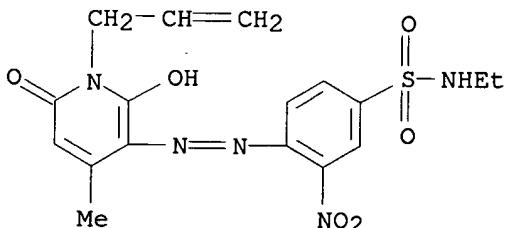
118379-47-8P 118379-67-2P 118379-68-3P

RL: PREP (Preparation)

(manuf. of, as yellow dye for hydrophobic fibers)

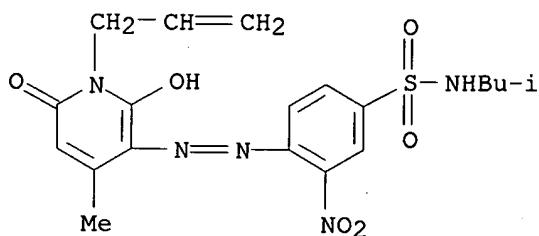
RN 118379-33-2 HCAPLUS

CN Benzenesulfonamide, 4-[[1,6-dihydro-2-hydroxy-4-methyl-6-oxo-1-(2-propenyl)-3-pyridinyl]azo]-N-ethyl-3-nitro- (9CI) (CA INDEX NAME)



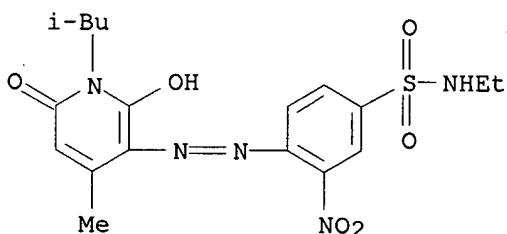
RN 118379-34-3 HCAPLUS

CN Benzenesulfonamide, 4-[[1,6-dihydro-2-hydroxy-4-methyl-6-oxo-1-(2-propenyl)-3-pyridinyl]azo]-N-(2-methylpropyl)-3-nitro- (9CI) (CA INDEX NAME)



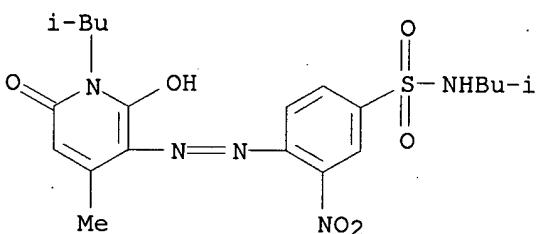
RN 118379-46-7 HCAPLUS

CN Benzenesulfonamide, 4-[(1,6-dihydro-2-hydroxy-4-methyl-1-(2-methylpropyl)-6-oxo-3-pyridinyl)azo]-N-ethyl-3-nitro- (9CI) (CA INDEX NAME)



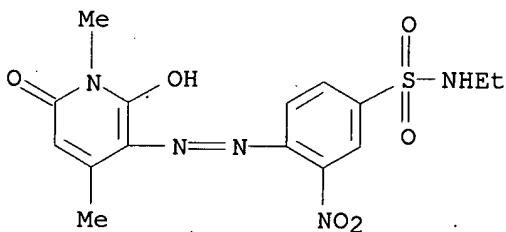
RN 118379-47-8 HCAPLUS

CN Benzenesulfonamide, 4-[(1,6-dihydro-2-hydroxy-4-methyl-1-(2-methylpropyl)-6-oxo-3-pyridinyl)azo]-N-(2-methylpropyl)-3-nitro- (9CI) (CA INDEX NAME)



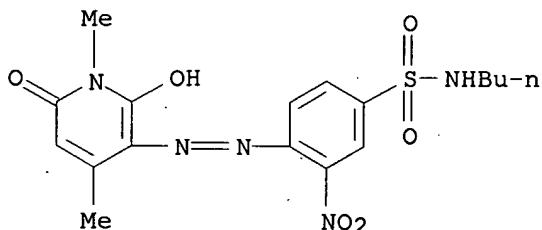
RN 118379-67-2 HCAPLUS

CN Benzenesulfonamide, 4-[(1,6-dihydro-2-hydroxy-1,4-dimethyl-6-oxo-3-pyridinyl)azo]-N-ethyl-3-nitro- (9CI) (CA INDEX NAME)



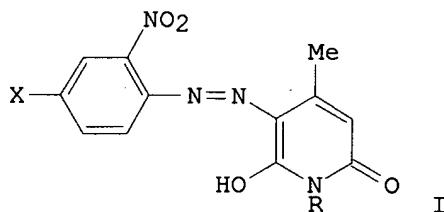
RN 118379-68-3 HCAPLUS

CN Benzenesulfonamide, N-butyl-4-[(1,6-dihydro-2-hydroxy-1,4-dimethyl-6-oxo-3-pyridinyl)azo]-3-nitro- (9CI) (CA INDEX NAME)



L35 ANSWER 10 OF 30 HCAPLUS COPYRIGHT 2003 ACS  
 AN 1988:612332 HCAPLUS  
 DN 109:212332  
 TI Pyridone-derived monoazo dyes and method of dyeing hydrophobic fibers  
 IN Nishikuri, Masao; Hashimoto, Kiyoyasu; Hattori, Hideo  
 PA Sumitomo Chemical Co., Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 5 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM C09B029-22  
 ICS D06P001-18  
 CC 40-6 (Textiles and Fibers)  
 Section cross-reference(s): 41  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 63095267	A2	19880426	JP 1986-240736	19861009
	JP 07088475	B4	19950927		
PRAI	JP 1986-240736		19861009		
OS	MARPAT 109:212332				
GI					



AB Hydrophobic fibers are dyed with .gtoreq.1 pyridone deriv. I [X = H, halo, alkyl, alkoxy, alkylcarbonyl, alkyloxycarbonyl, aralkyloxycarbonyl, alkylsulfonyl, arylsulfonyl, (substituted) carbamoyl, (substituted) sulfamoyl, cyano; R = C5-8 alkyl]. The derivs. are stable in use and dye hydrophobic fibers in enhanced exhaustion with good fastness properties. Thus, 100 parts polyester fabric was immersed in a bath contg. 3 parts dye dispersion [prepd. from I (X = H, R = n-C5H11; .lambda.max 432 nm in DMF) 20, naphthalenesulfonic acid-HCHO condensation product 20, and H2O 60 parts] and 3000 parts H2O at 130.degree. and pH 5 (controlled by AcOH) for 60 min. The fabric was dyed in bright greenish yellow and showed good light fastness.

ST pyridone monoazo dye hydrophobic fiber; polyester fiber pyridone monoazo dye; stability pyridone monoazo dye polyester; light fastness pyridone monoazo polyester

IT Polyester fibers, uses and miscellaneous  
 RL: USES (Uses)  
 (dyes for, pyridone-derived monoazo compds. as, manuf. of)

IT Dyeing  
 (of hydrophobic fibers, with pyridone-derived monoazo dyes)

IT Dyes, azo  
 (pyridone derivs., for hydrophobic fibers)

IT 117490-06-9, 5-(2'-Nitro-4'-methylphenylazo)-4-methyl-6-hydroxypyrid-2-one  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (N-alkylation of, with ethylhexyl bromide)

IT 18908-66-2, 2-Ethylhexyl bromide  
 RL: USES (Uses)  
 (N-alkylation with, of pyridone deriv.)

IT 117490-05-8, 1-n-Amyl-4-methyl-6-hydroxypyrid-2-one  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (coupling of, with diazotized nitroaniline)

IT 59487-16-0, 1-(2-Ethylhexyl)-4-methyl-6-hydroxypyrid-2-one  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (coupling of, with diazotized nitromethylaniline)

IT 88-74-4, o-Nitroaniline 89-62-3, o-Nitro-p-methylaniline  
 RL: PRP (Properties)  
 (diazotization and coupling of, with pyridone deriv.)

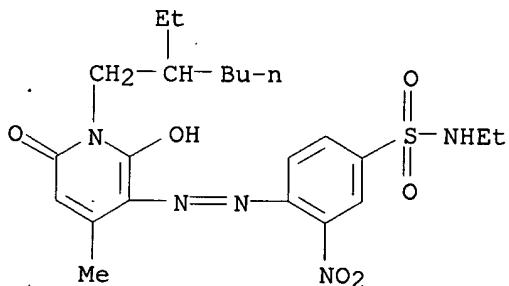
IT 117490-09-2 117490-10-5 117490-11-6 117490-12-7 117490-13-8  
 117490-14-9 117490-15-0 117490-16-1 117490-17-2 117490-18-3  
**117490-19-4 117490-20-7 117490-21-8 117490-22-9**  
 117490-23-0 117509-68-9 117509-69-0  
 RL: USES (Uses)  
 (for dyeing hydrophobic fibers)

IT 117490-07-0P 117490-08-1P  
 RL: IMF (Industrial manufacture); PREP (Preparation)  
 (prepn. of, for dyeing hydrophobic fibers)

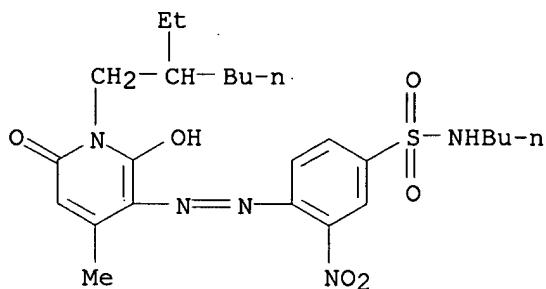
IT **117490-19-4 117490-20-7**  
 RL: USES (Uses)  
 (for dyeing hydrophobic fibers)

RN 117490-19-4 HCPLUS

CN Benzenesulfonamide, N-ethyl-4-[[1-(2-ethylhexyl)-1,6-dihydro-2-hydroxy-4-methyl-6-oxo-3-pyridinyl]azo]-3-nitro- (9CI) (CA INDEX NAME)



RN 117490-20-7 HCPLUS  
 CN Benzenesulfonamide, N-butyl-4-[[1-(2-ethylhexyl)-1,6-dihydro-2-hydroxy-4-methyl-6-oxo-3-pyridinyl]azo]-3-nitro- (9CI) (CA INDEX NAME)



L35 ANSWER 11 OF 30 HCAPLUS COPYRIGHT 2003 ACS

AN 1988:592162 HCAPLUS

DN 109:192162

TI Dyeing of hydrophobic fibers with pyridone-derived monoazo dyes

IN Nishikuri, Masao; Hashimoto, Kiyoyasu; Hattori, Hideo

PA Sumitomo Chemical Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM D06P001-18

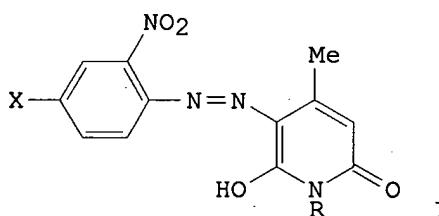
ICS C09B029-42

CC 41-3 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)

Section cross-reference(s): 40

FAN.CNT 1

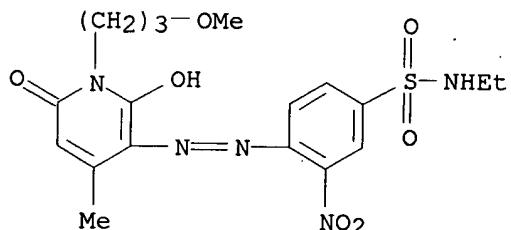
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 63099382	A2	19880430	JP 1986-245046	19861014
	JP 07088633	B4	19950927		
PRAI	JP 1986-245046		19861014		
OS	MARPAT 109:192162				
GI					



AB Hydrophobic fibers are dyed with monoazo dyes I [X = H, halo, alkyl, alkoxy, alkylcarbonyl, alkyloxycarbonyl, aralkyloxycarbonyl, alkylsulfonyl, arylsulfonyl, (substituted) carbamoyl, (substituted) sulfamoyl, cyano; R = alkyl substituted with halogen, OH, CN, OR1, OCOR1, OCO2R1, CO2R1, NHSO2R1, NHCOR1, or OCONHR1; R1 = alkyl, alkenyl, alkoxyalkyl, cycloalkyl]. The dyes are stable in use, and show good dye exhaustion and fastness properties. Thus, o-nitroaniline was diazotized and coupled with 1.-beta.-acetoxyethyl-4-methyl-6-hydroxypyrid-2-one to

give I ( $X = H$ ,  $R = C_2H_4OAc$ ) having  $\lambda_{max}$  432 nm in DMF. Then 100 parts polyester fabric was immersed in a bath contg. 3 parts dispersion of this dye 20, naphthalenesulfonic acid-HCHO condensate 20, and  $H_2O$  60%, and 3000 parts  $H_2O$  at 130.degree. and pH 5 (controlled by AcOH) for 60 min. The fabric was dyed in bright greenish **yellow** with good dye exhaustion and light fastness.

ST pyridone monoazo dye hydrophobic fiber; polyester fiber pyridone monoazo dye; stability pyridone monoazo dye; light fastness pyridone monoazo dye  
 IT Polyester fibers, uses and miscellaneous  
 RL: USES (Uses)  
 (dyes for, pyridone derivs. as, manuf. of)  
 IT Dyeing  
 (of hydrophobic fibers, with pyridone-derived monoazo dyes)  
 IT Dyes, azo  
 (pyridone derivs., for hydrophobic fibers)  
 IT 117207-93-9  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (N-alkylation of, with methoxyethyl bromide)  
 IT 6482-24-2,  $\beta$ -Methoxyethyl bromide  
 RL: USES (Uses)  
 (N-alkylation with, of pyridone deriv.)  
 IT 117207-91-7  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (coupling of, with diazotized nitroaniline)  
 IT 117207-92-8  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (coupling of, with diazotized nitrobromoaniline)  
 IT 88-74-4, o-Nitroaniline 875-51-4  
 RL: PRP (Properties)  
 (diazotization and coupling of, with pyridone deriv.)  
 IT 117207-94-0P 117207-95-1P 117207-96-2P 117207-97-3P 117207-98-4P  
 117207-99-5P 117208-00-1P 117208-01-2P 117208-02-3P 117208-03-4P  
**117208-04-5P** 117208-05-6P 117208-06-7P 117208-07-8P 117208-12-5P  
 117208-08-9P 117208-09-0P 117208-10-3P 117208-11-4P 117208-17-0P  
 117208-13-6P 117208-14-7P 117208-15-8P 117208-16-9P 117208-22-7P  
 117208-18-1P 117208-19-2P 117208-20-5P 117208-21-6P  
 117208-23-8P 117208-24-9P 117208-25-0P 117208-26-1P  
**117230-01-0P**  
 RL: IMF (Industrial manufacture); PREP (Preparation)  
 (prepn. of, for dyeing hydrophobic fibers)  
 IT **117208-04-5P 117230-01-0P**  
 RL: IMF (Industrial manufacture); PREP (Preparation)  
 (prepn. of, for dyeing hydrophobic fibers)  
 RN 117208-04-5 HCAPLUS  
 CN Benzenesulfonamide, 4-[[1,6-dihydro-2-hydroxy-1-(3-methoxypropyl)-4-methyl-6-oxo-3-pyridinyl]azo]-N-ethyl-3-nitro- (9CI) (CA INDEX NAME)





exhaustion and fastness properties. Thus, p-bromo-o-nitroaniline was diazotized and coupled with 1-benzyl-4-methyl-6-hydroxypyrid-2-one to give I (X = Br, R = CH<sub>2</sub>, Y = nil, Z = H) (II), which had  $\lambda_{max}$  432 nm in DMF. Then 100 parts polyester fabric was immersed in a bath contg. 3 parts dye dispersion (II 20, naphthalenesulfonic acid-HCHO condensate 20, and H<sub>2</sub>O 60%) and 3000 parts H<sub>2</sub>O at 130.degree. and pH 5 (adjusted with AcOH) for 60 min. The fabric was dyed in bright greenish **yellow** with good dye exhaustion and good light fastness.

ST pyridone monoazo dye hydrophobic fiber; polyester fiber pyridone monoazo dye; stability pyridone monoazo dye; light fastness pyridone monoazo polyester; exhaustion dyeing polyester azopyridone deriv

IT Polyester fibers, uses and miscellaneous

RL: USES (Uses)  
(dyes for, pyridone-derived monoazo dyes as, manuf. of)

IT Dyeing  
(of hydrophobic fibers, with pyridone-derived monoazo dyes)

IT Dyes, azo  
(pyridone derivs., for hydrophobic fibers)

IT 103-63-9  
RL: USES (Uses)  
(N-alkylation with, of pyridone derivs.)

IT 31643-70-6  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(coupling of, with diazotized bromonitroaniline)

IT 117208-27-2  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(coupling of, with diazotized nitromethylaniline)

IT 89-62-3 875-51-4, p-Bromo-o-nitroaniline  
RL: PRP (Properties)  
(diazotization and coupling of, with pyridone derivs.)

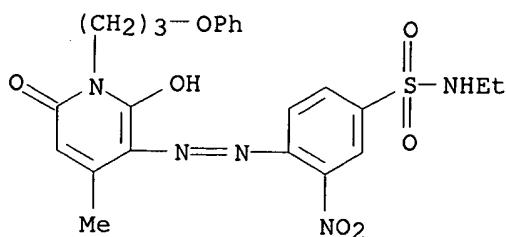
IT 117207-93-9P  
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)  
(prepn. and N-alkylation of, with phenethyl bromide)

IT 117208-28-3P 117208-29-4P 117208-30-7P 117208-31-8P 117208-32-9P  
117208-33-0P 117208-34-1P 117208-35-2P 117208-36-3P 117208-37-4P  
**117208-38-5P 117208-39-6P** 117208-40-9P 117208-41-0P  
117208-42-1P 117208-43-2P 117208-44-3P 117208-45-4P 117208-46-5P  
117208-47-6P 117208-48-7P 117208-49-8P 117208-50-1P 117208-51-2P  
117208-52-3P 117208-53-4P 117208-54-5P 117208-55-6P 117208-56-7P  
117208-57-8P 117208-58-9P 117208-59-0P 117208-60-3P 117208-61-4P  
117208-62-5P 117208-63-6P 117208-64-7P  
RL: IMF (Industrial manufacture); PREP (Preparation)  
(prepn. of, for dyeing hydrophobic fibers)

IT **117208-38-5P 117208-39-6P**  
RL: IMF (Industrial manufacture); PREP (Preparation)  
(prepn. of, for dyeing hydrophobic fibers)

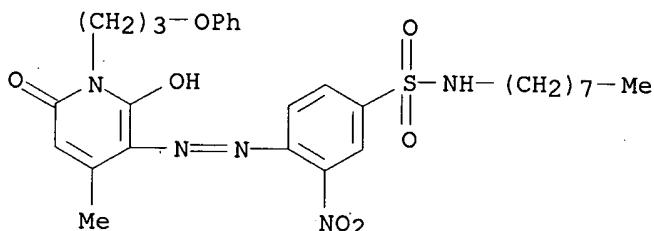
RN 117208-38-5 HCPLUS

CN Benzenesulfonamide, 4-[[1,6-dihydro-2-hydroxy-4-methyl-6-oxo-1-(3-phenoxypropyl)-3-pyridinyl]azo]-N-ethyl-3-nitro- (9CI) (CA INDEX NAME)



RN 117208-39-6 HCPLUS

CN Benzenesulfonamide, 4-[[1,6-dihydro-2-hydroxy-4-methyl-6-oxo-1-(3-phenoxypropyl)-3-pyridinyl]azo]-3-nitro-N-octyl- (9CI) (CA INDEX NAME)



L35 ANSWER 13 OF 30 HCPLUS COPYRIGHT 2003 ACS

AN 1988:177125 HCPLUS

DN 108:177125

TI Anthraquinone derivatives in electrophotographic green toners

IN Ide, Noriaki; Otaki, Kazumi; Tomita, Masami

PA Ricoh Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03G009-08

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 62169167	A2	19870725	JP 1986-10217	19860122
PRAI	JP 1986-10217		19860122		
GI					

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB Electrophotog. green toners contain a coloring agent from a mixt. of a compd. of the formula I [R = H, alkyl, (substituted) Ph, alkoxy alkyl] and a compd(s). of II and/or III and a binder **resin** as main constituents. The toners provide uniform d. images without fog and exhibit good durability, environmental stability, and antioffset properties. Thus, a mixt. of Bu methacrylate-styrene **copolymer**

100, I [R = (CH<sub>2</sub>)<sub>3</sub>OMe] 5, C.I. Solvent **Yellow** 163 5, and Zn salicylate 3 parts was kneaded, pulverized, and then mixed with a silicone-coated ferrite carrier to give an electrophotog. developer which gave high quality images under both high and low temp. conditions and showed good durability.

ST electrophotog green toner coloring agent; anthraquinone deriv green toner electrophotog; solvent **yellow** green toner electrophotog; pigment **yellow** green toner electrophotog.

IT Electrophotographic developers  
(toners, green colorants for high quality image and good durability with)

IT 4531-49-1, C.I. Pigment **yellow** 17 12217-80-0 73287-68-0  
106768-99-4, C.I. Solvent **yellow** 163 108669-89-2  
**111672-28-7** 114040-33-4

RL: USES (Uses)  
(electrophotog. green toner using)

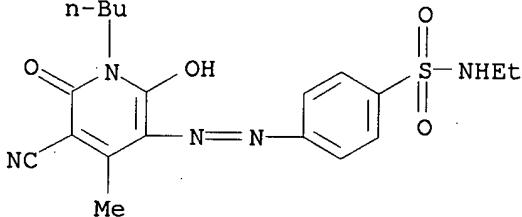
IT 56113-32-7D, derivs.  
RL: USES (Uses)

(electrophotog. green toners using)

IT **111672-28-7**  
RL: USES (Uses)  
(electrophotog. green toner using)

RN **111672-28-7** HCPLUS

CN Benzenesulfonamide, 4-[(1-butyl-5-cyano-1,6-dihydro-2-hydroxy-4-methyl-6-oxo-3-pyridinyl)azo]-N-ethyl- (9CI) (CA INDEX NAME)



L35 ANSWER 14 OF 30 HCPLUS COPYRIGHT 2003 ACS

AN 1987:646667 HCPLUS

DN 107:246667

TI Color toners for electrophotography

IN Tomita, Masami; Nomura, Yoshihiro; Ide, Noriaki; Ohtaki, Kazumi

PA Ricoh Co., Ltd., Japan

SO Ger. Offen., 13 pp.

CODEN: GWXXBX

DT Patent

LA German

IC ICM G03G009-08

ICS G03G009-14; C09B001-20

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

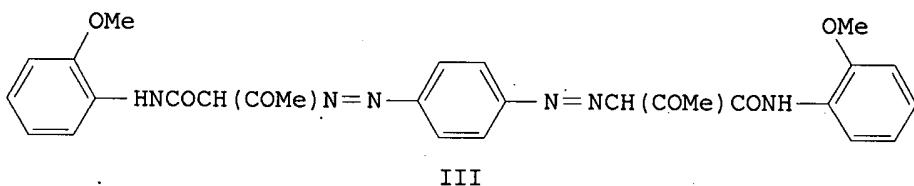
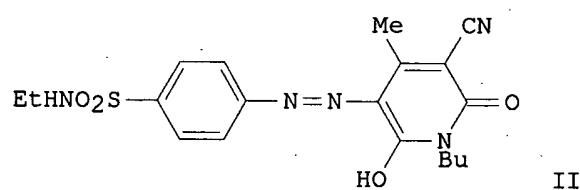
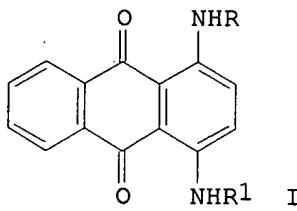
Section cross-reference(s): 41

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 3643604	A1	19870625	DE 1986-3643604	19861219
	DE 3643604	C2	19910523		

JP 62145254	A2	19870629	JP 1985-287317	19851219
JP 07011718	B4	19950208		
JP 62169166	A2	19870725	JP 1986-10218	19860122
JP 07011721	B4	19950208		
US 4888263	A	19891219	US 1986-939382	19861208
GB 2184858	A1	19870701	GB 1986-30002	19861216
GB 2184858	B2	19891018		
PRAI JP 1985-287317		19851219		
JP 1986-10218		19860122		

GI



AB Color toners for electrophotog. are described which contain an anthraquinone deriv. of the formula I (R = H or C<sub>6</sub>H<sub>5</sub> or C<sub>6</sub>H<sub>5</sub>alkyl; R1 = H, C<sub>6</sub>H<sub>5</sub>alkyl, or Ph) and a binder **resin** or I and a compd. selected from II and III and a binder **resin**. The toners, which produce no fog and edge effects and give a uniform d., which have excellent environmental stability, and which are not affected by temp. and moisture and show no offsetting, also contain addnl. additives, such as flow agents, plasticizers, and charge-controlling agents. A mixt. contg. a Bu methacrylate-styrene **copolymer**, Oraset Blue 2R, and Zn salicylate (charge-controlling agent), melt-kneaded, cooled, crushed, pulverized, and classified to give a particle size of 5-20 .mu.m. This toner was then combined with a silicone-coated ferrite carrier to give a 2-component developer that gave a clear blue image without fog. The image quality of the copies did not decrease even after continuous prodn. of 20,000 copies.

ST color toner electrophotog anthraquinone deriv

IT Epoxy **resins**, uses and miscellaneous

Phenolic **resins**, uses and miscellaneous

Polyesters, uses and miscellaneous

RL: USES (Uses)

(electrophotog. developers with color toners contg. anthraquinone deriv. and binder from)

IT Paraffin waxes and Hydrocarbon waxes, uses and miscellaneous

RL: USES (Uses)

(chloro, electrophotog. developers with color toners contg. anthraquinone deriv. and binder from)

IT Electrophotographic developers  
(color, toners for, contg. anthraquinone deriv. and binder)

IT Polyesters, uses and miscellaneous  
RL: USES (Uses)  
(unsatd., electrophotog. developers with color toners contg. anthraquinone deriv. and binder from)

IT 16283-36-6, Zinc salicylate  
RL: USES (Uses)  
(charge-controlling agent, electrophotog. color developers contg. anthraquinone deriv. and binder and)

IT 1327-33-9, Antimony oxide 1332-29-2, Tin oxide 1335-25-7, Lead oxide  
RL: USES (Uses)  
(electrophotog. developers with color toners contg. anthraquinone deriv. and binder and)

IT 9002-88-4, Polyethylene 9003-07-0, Polypropylene 9003-53-6,  
Polystyrene 9003-55-8, Butadiene-styrene **copolymer**  
9010-92-8, Methacrylic acid-styrene **copolymer** 25085-34-1,  
Acrylic acid-styrene **copolymer** 25213-39-2, Butyl  
methacrylate-styrene **copolymer**  
RL: USES (Uses)  
(electrophotog. developers with color toners contg. anthraquinone deriv. and binder from)

IT 88-99-3, Phthalic acid, uses and miscellaneous 557-05-1, Zinc stearate  
RL: USES (Uses)  
(electrophotog. developers with color toners contg. anthraquinone derivs. and binders and)

IT 4395-65-7 55599-26-3 65177-57-3 86302-54-7 108483-78-9  
111672-27-6 **111672-28-7**  
RL: USES (Uses)  
(electrophotog. developers with color toners contg. binder and)

IT 128-95-0D, derivs.  
RL: USES (Uses)  
(electrophotog. developers with color toners contg. binders and)

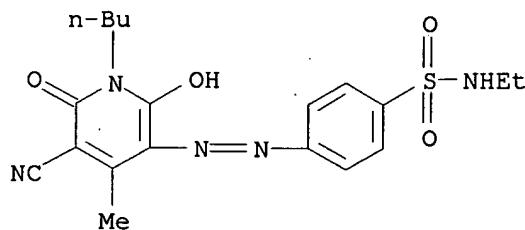
IT 1344-28-1, Aluminum oxide, uses and miscellaneous 7631-86-9, Silicon  
dioxide, uses and miscellaneous 13463-67-7, Titanium dioxide, uses and  
miscellaneous  
RL: USES (Uses)  
(flow-improving agent, electrophotog. developers with color toners contg. anthraquinone derivs. and binder and)

IT 84-74-2, Dibutyl phthalate 117-81-7, Dioctyl phthalate  
RL: MOA (Modifier or additive use); USES (Uses)  
(plasticizer, electrophotog. developers with color toners contg. anthraquinone deriv. and binder and)

IT **111672-28-7**  
RL: USES (Uses)  
(electrophotog. developers with color toners contg. binder and)

RN 111672-28-7 HCAPLUS

CN Benzenesulfonamide, 4-[(1-butyl-5-cyano-1,6-dihydro-2-hydroxy-4-methyl-6-oxo-3-pyridinyl)azo]-N-ethyl- (9CI) (CA INDEX NAME)



L35 ANSWER 15 OF 30 HCAPLUS COPYRIGHT 2003 ACS

AN 1985:543356 HCAPLUS

DN 103:143356

TI Reactive pyridone azo dyes

PA Mitsubishi Chemical Industries Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 11 pp.

CODEN: JKXXAF

DT Patent

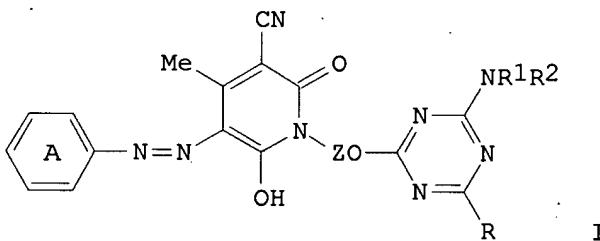
LA Japanese

IC ICM C09B062-405

CC 41-3 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)

FAN.CNT 1

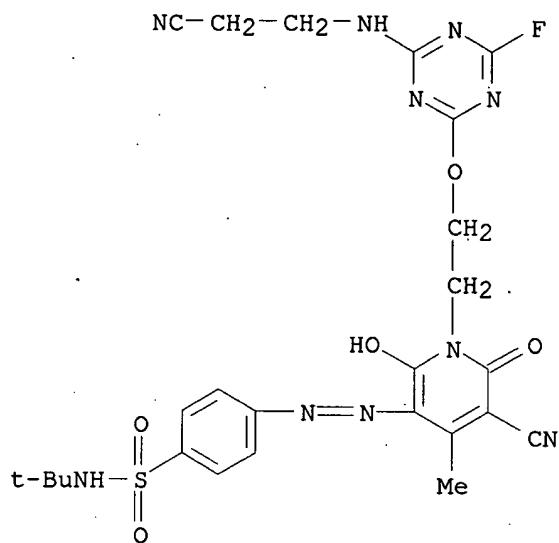
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 60112862	A2	19850619	JP 1983-220302	19831122
	JP 04037105	B4	19920618		
PRAI	JP 1983-220302		19831122		
GI					



AB The title dyes I (R = Cl, F; R1, R2 = H, (un)substituted alkyl, alkenyl, cyclohexyl, aryl, aralkyl; NR1R2 = 5- or 6-membered heterocycle; Z = (un)substituted alkylene; ring A may contain substituent(s)] were prep'd. and used for dyeing cotton, cotton-polyester blend, cotton-wool blend, and polyamide fibers in fast **yellow** to orange shades. Thus, 2,4,6-trifluoro-s-triazine [675-14-9] in acetone was stirred with ethylene bromohydrin [540-51-2] and diethylamine [109-89-7] in the presence of Et3N for 1 h to obtain 95% 2-(2-bromoethoxy)-4-(diethylamino)-6-fluoro-s-triazine [95544-93-7] which was refluxed 1 h with 3-cyano-5-(2,4-dichlorophenylazo)-6-hydroxy-4-methyl-2-pyridone [16539-98-3] in acetone in the presence of Et3N to obtain 86% I (3,4-dichloro in ring A; Z = CH2CH2; R = F; R1 = R2 = Et) [98480-86-5], fast **yellow** on polyester-cotton blend.

ST pyridone azo reactive dye; cotton reactive azo dye; polyester fiber

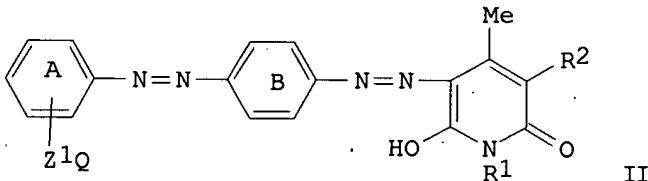
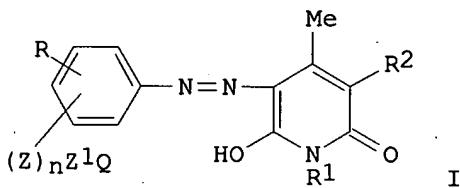
reactive azo dye; wool reactive azo dye; polyamide fiber reactive azo dye  
 IT Polyester fibers, uses and miscellaneous  
 RL: USES (Uses)  
 (cotton blends, pyridone azo reactive dyes for)  
 IT Dyes, reactive  
 (pyridone azo derivs., for cotton and wool and blends)  
 IT Polyamide fibers, uses and miscellaneous  
 RL: USES (Uses)  
 (pyridone azo reactive dyes for)  
 IT 121-87-9  
 RL: USES (Uses)  
 (coupling of diazotized, with pyridone derivs.)  
 IT 98458-25-4  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (coupling of, with diazotized chloronitroaniline)  
 IT 98418-20-3 98418-21-4 98418-22-5 98418-23-6 98418-24-7  
 98418-25-8 98418-26-9 98418-27-0 98418-28-1 98418-29-2  
 98418-30-5 98418-31-6 98418-32-7 98418-33-8 98418-34-9  
 98418-35-0 98418-36-1 98418-37-2 98418-38-3 98418-39-4  
 98418-40-7 98418-41-8 98418-42-9 98418-43-0 98418-44-1  
 98418-45-2 98448-83-0 98448-84-1 98458-10-7 98458-11-8  
 98458-12-9 98458-13-0 98458-14-1 98458-15-2 98458-16-3  
 98458-17-4 98458-18-5 98458-19-6 98458-20-9 98458-21-0  
 98458-22-1 98458-23-2 98479-86-8 98480-81-0 **98480-82-1**  
 98480-83-2 98480-84-3 98480-85-4 98480-86-5 98507-73-4  
 98507-74-5  
 RL: USES (Uses)  
 (dye, for cotton and wool and blends)  
 IT 16539-98-3 98458-24-3  
 RL: USES (Uses)  
 (in reactive dye manuf.)  
 IT 95544-93-7  
 RL: USES (Uses)  
 (in reactive pyridone azo dye manuf.)  
 IT 675-14-9  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (reaction of, with ethylene bromohydrin and diethylamine)  
 IT 109-89-7, reactions 540-51-2  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (reaction of, with trifluorotriazine)  
 IT **98480-82-1**  
 RL: USES (Uses)  
 (dye, for cotton and wool and blends)  
 RN 98480-82-1 HCPLUS  
 CN Benzenesulfonamide, 4-[[5-cyano-1-[2-[[4-[(2-cyanoethyl)amino]-6-fluoro-1,3,5-triazin-2-yl]oxy]ethyl]-1,6-dihydro-2-hydroxy-4-methyl-6-oxo-3-pyridinyl]azo]-N-(1,1-dimethylethyl)- (9CI) (CA INDEX NAME)



L35 ANSWER 16 OF 30 HCPLUS COPYRIGHT 2003 ACS  
 AN 1985:524989 HCPLUS  
 DN 103:124989  
 TI Reactive pyridinone azo dyes  
 IN Niwa, Toshio; Himeno, Kiyoshi; Hihara, Toshio; Shimizu, Yukiharu  
 PA Mitsubishi Chemical Industries Co., Ltd., Japan  
 SO Eur. Pat. Appl., 114 pp.  
 CODEN: EPXXDW  
 DT Patent  
 LA English  
 IC ICM C09B062-026  
 ICS D06P003-66; D06P003-10; D06P001-38  
 CC 41-3 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic  
 Sensitizers)  
 Section cross-reference(s): 40

FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 142863	A2	19850529	EP 1984-114042	19841120
	EP 142863	A3	19860319		
	EP 142863	B1	19890322		
	R: CH, DE, FR, GB, LI				
	JP 60112861	A2	19850619	JP 1983-220301	19831122
	JP 04072862	B4	19921119		
	JP 60252660	A2	19851213	JP 1984-108949	19840529
	JP 04064341	B4	19921014		
PRAI	JP 1983-220301		19831122		
	JP 1984-108949		19840529		
OS	CASREACT 103:124989				
GI					



AB    Reactive disperse dyes with good lightfastness are represented by general structures I and II, where ring A is optionally substituted by lower alkyl, lower alkoxy, CF<sub>3</sub>, or halogen; ring B is optionally substituted by lower alkyl, lower alkoxy, halogen, or AcNH; Z = CH<sub>2</sub>, CH<sub>2</sub>CH<sub>2</sub>, OCH<sub>2</sub>CH<sub>2</sub>, CONHCH<sub>2</sub>CH<sub>2</sub>, SO<sub>2</sub>NHCH<sub>2</sub>CH<sub>2</sub>, or SO<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>; n = 0 or 1; Z<sub>1</sub> = O or S; Q = 6-membered N-contg. heterocyclic ring contg. >1 reactive halogen atom; R = H, lower alkyl, lower alkoxy, NO<sub>2</sub>, CF<sub>3</sub>, or halogen; R<sub>1</sub> = alkyl, aryl optionally substituted by lower alkoxy or phenoxy; and R<sub>2</sub> = CN or CONH<sub>2</sub>. I and II are **yellow** reddish orange dyes for cellulose, polyamide, cellulose-polyamide, cellulose-polyester, and polyester-wool textiles. Thus, polyester-cotton was print-dyed a light- and washfast **yellow** shade by I [R = H, R<sub>1</sub> = n-C<sub>8</sub>H<sub>17</sub>, R<sub>2</sub> = CN, n = 0, Z<sub>1</sub> = O, Q = 4-(dibutylamino)-6-fluoro-s-triazin-2-yl (m-position)] [98313-70-3], prep'd. by reaction of the corresponding m-hydroxyphenylazo compd. [98313-71-4] with 2-(dibutylamino)-4,6-difluoro-s-triazine [84875-65-0] and applied in the presence of a swelling agent. A large no. of other I (and II) are reported.

ST    azo disperse reactive dye; pyridone azo reactive dye; disazo disperse reactive dye; halotriazine reactive dye

IT    Dyes, reactive

    (disperse, pyridone-based mono- and disazo compds. contg. halo heterocyclic groups, for natural and synthetic fibers)

IT    Polyamide fibers, uses and miscellaneous

    Polyester fibers, uses and miscellaneous

RL: USES (Uses)

    (dyes for, pyridone-based mono- and disazo compds. and reactive disperse)

IT    103-18-4    85401-49-6

RL: USES (Uses)

    (coupling of diazotized, with pyridone deriv.)

IT    29333-76-4

RL: RCT (Reactant); RACT (Reactant or reagent)

    (coupling of, with diazotized aminoazobenzene deriv.)

IT    27074-03-9

RL: RCT (Reactant); RACT (Reactant or reagent)

    (coupling of, with diazotized aminohydroxyazobenzene)

IT    98356-38-8

RL: USES (Uses)

    (dye, for polyester fabric)

IT    98234-28-7    98313-71-4

IT 675-14-9 RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with (dibutylamino)difluorotriazine)

IT 98233-83-1 98313-26-9 RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with (hydroxyethyl)phenylazo dye)

IT 98233-28-4 RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with chlorodifluoromethylpyrimidine)

IT 98233-30-8 98234-30-1 RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with cyanuric fluoride)

IT 98233-89-7 RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with dichloro(diethylamino)triazine)

IT 98313-33-8 RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with dichloromethoxytriazine)

IT 98234-32-3 RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with dichloromethyltriazine)

IT 98313-35-0 RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with difluoro(propylamino)triazine)

IT 98233-91-1 RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with difluorophenoxytriazine)

IT 98313-28-1 RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with difluoropyrimidine deriv.)

IT 107-10-8, reactions RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with difluorotriazine azo dye)

IT 98313-29-2 RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with hydroxyphenyl disazo dye)

IT 1722-19-6 1780-40-1 30886-18-1 69293-63-6 72630-78-5 84875-65-0  
84875-66-1 RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with hydroxyphenylazo dye)

IT 705-52-2 3638-04-8 RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with mercaptophenylazo dye)

IT 98233-85-3 98313-31-6 RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with tetrachloropyrimidine)

IT 98233-87-5 RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with trifluoro(methylsulfonyl)pyrimidine)

IT 98233-31-9 98233-86-4 98234-07-2 98234-08-3 98234-09-4  
98234-10-7 98234-11-8 98234-33-4 98234-52-7 98313-30-5  
98313-46-3 98313-47-4 98313-48-5 98313-49-6 98313-50-9  
98313-51-0 RL: USES (Uses)  
(reactive disperse dye, for cotton fabric)

IT 98233-29-5 98233-88-6 98234-12-9 98234-13-0 98234-14-1

98234-15-2	98234-16-3	98234-17-4	98234-18-5	98234-29-8
98234-51-6	98253-46-4	98313-32-7	98313-52-1	98313-53-2
98313-54-3	98313-55-4	98313-56-5	98313-57-6	98313-58-7
98313-59-8				

RL: USES (Uses)

(reactive disperse dye, for nylon fabric)

IT	98234-24-3	98234-25-4	98234-26-5	98313-66-7	98313-67-8
	98313-68-9	98313-69-0			

RL: USES (Uses)

(reactive disperse dye, for nylon-rayon fabric)

IT	98234-34-5				
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RL: USES (Uses)

(reactive disperse dye, for polyester fabric)

IT	98148-17-5	98148-18-6	98148-19-7	98148-20-0	98148-21-1
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	98148-22-2	98148-24-4	98148-25-5	98148-26-6	98148-27-7
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	98180-94-0	98233-27-3	98233-33-1	<b>98233-34-2</b>	
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	<b>98233-35-3</b>	98233-36-4	98233-37-5	98233-38-6	98233-39-7
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	98233-40-0	98233-41-1	98233-42-2	98233-43-3	98233-44-4
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	98233-45-5	98233-46-6	98233-47-7	98233-48-8	98233-49-9
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	98233-50-2	98233-51-3	98233-52-4	98233-53-5	98233-54-6
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	98233-55-7	98233-56-8	98233-57-9	98233-58-0	98233-59-1
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	98233-60-4	98233-61-5	98233-62-6	<b>98233-63-7</b>	98233-64-8
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	98233-65-9	98233-66-0	98233-67-1	98233-68-2	98233-69-3
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	98233-70-6	98233-71-7	98233-72-8	98233-73-9	98233-74-0
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	98233-75-1	98233-76-2	98233-77-3	98233-78-4	98233-79-5
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	98233-80-8	98233-81-9	98233-82-0	98233-84-2	98233-92-2
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	98233-93-3	98233-94-4	98233-95-5	98233-96-6	98233-97-7
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	98233-98-8	98233-99-9	98234-00-5	98234-01-6	98234-02-7
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	98234-03-8	98234-04-9	98234-05-0	98234-06-1	98234-27-6
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	98234-31-2	98234-35-6	98234-36-7	98234-37-8	98234-38-9
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	98234-39-0	98234-40-3	98234-41-4	98234-42-5	98234-43-6
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	98234-44-7	98234-45-8	98234-46-9	98234-47-0	98234-48-1
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	98234-49-2	98234-50-5	98253-41-9	98253-42-0	98253-43-1
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	98253-44-2	98253-45-3	98312-94-8	98312-95-9	98312-96-0
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	98312-97-1	98312-98-2	98312-99-3	98313-00-9	98313-01-0
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	98313-02-1	98313-03-2	98313-04-3	98313-05-4	98313-06-5
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	98313-07-6	98313-08-7	98313-09-8	98313-10-1	98313-11-2
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	98313-12-3	98313-13-4	98313-14-5	98313-15-6	98313-16-7
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	98313-17-8	98313-18-9	98313-19-0	98313-20-3	98313-21-4
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	98313-22-5	98313-23-6	98313-24-7	98313-25-8	98313-27-0
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	98313-36-1	98313-37-2	98313-38-3	98313-39-4	98313-40-7
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	98313-41-8	98313-42-9	98313-43-0	98313-44-1	98313-45-2
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	98313-70-3	98356-39-9	98356-40-2	98356-41-3	98356-42-4
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	98356-43-5				
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RL: RCT (Reactant); TEM (Technical or engineered material use); RACT (Reactant or reagent); USES (Uses)

(reactive disperse dye, for polyester-cotton fabric)

IT	98148-23-3	98233-90-0	98234-19-6	98234-20-9	98234-21-0
	98234-22-1	98234-23-2	98312-93-7	98313-34-9	98313-60-1
	98313-61-2	98313-62-3	98313-63-4	98313-64-5	98313-65-6

RL: USES (Uses)

(reactive disperse dye, for polyester-wool fabric)

IT	98233-32-0				
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RL: USES (Uses)

(reactive disperse dye, for textiles)

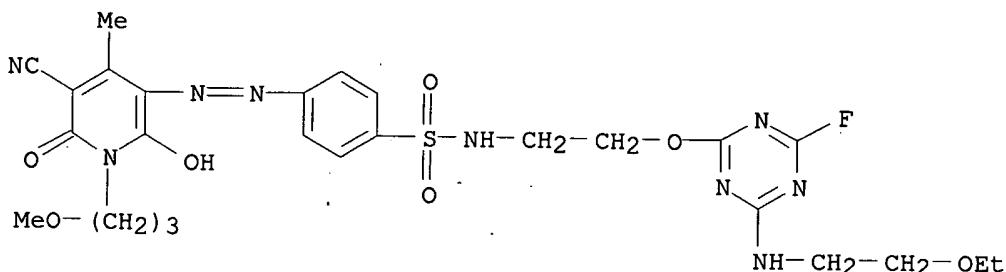
IT	<b>98233-34-2</b>	<b>98233-35-3</b>	<b>98233-63-7</b>		
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RL: RCT (Reactant); TEM (Technical or engineered material use); RACT (Reactant or reagent); USES (Uses)

(reactive disperse dye, for polyester-cotton fabric)

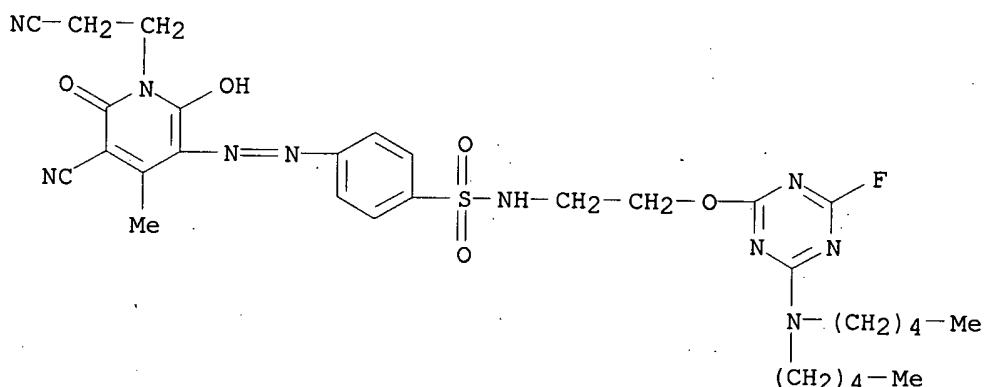
RN 98233-34-2 HCPLUS

CN Benzenesulfonamide, 4-[[5-cyano-1,6-dihydro-2-hydroxy-1-(3-methoxypropyl)-4-methyl-6-oxo-3-pyridinyl]azo]-N-[2-[[4-[(2-ethoxyethyl)amino]-6-fluoro-1,3,5-triazin-2-yl]oxy]ethyl]- (9CI) (CA INDEX NAME)



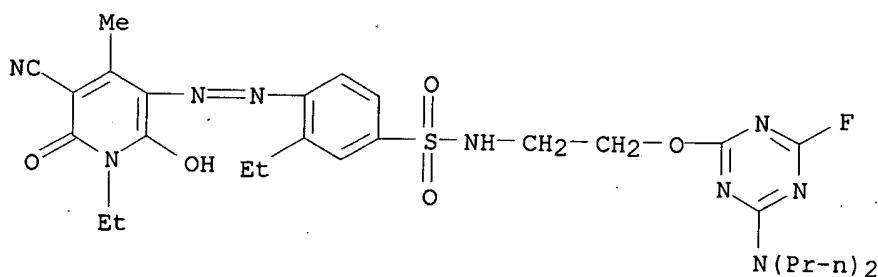
RN 98233-35-3 HCPLUS

CN Benzenesulfonamide, 4-[[5-cyano-1-(2-cyanoethyl)-1,6-dihydro-2-hydroxy-4-methyl-6-oxo-3-pyridinyl]azo]-N-[2-[[4-(dipentylamino)-6-fluoro-1,3,5-triazin-2-yl]oxy]ethyl]- (9CI) (CA INDEX NAME)



RN 98233-63-7 HCPLUS

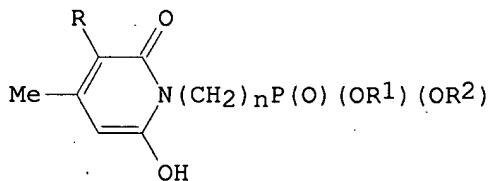
CN Benzenesulfonamide, 4-[(5-cyano-1-ethyl-1,6-dihydro-2-hydroxy-4-methyl-6-oxo-3-pyridinyl)azo]-N-[2-[[4-(dipropylamino)-6-fluoro-1,3,5-triazin-2-yl]oxy]ethyl]-3-ethyl- (9CI) (CA INDEX NAME)



AN 1981:408815 HCAPLUS  
 DN 95:8815  
 TI Pyridone couplers for azo dyes  
 IN Williams, David John  
 PA Imperial Chemical Industries Ltd., UK  
 SO Brit. UK Pat. Appl., 6 pp.  
 CODEN: BAXXDU  
 DT Patent  
 LA English  
 IC C07F009-58; C09B062-82  
 CC 40-10 (Dyes, Fluorescent Whiteners, and Photosensitizers)  
 Section cross-reference(s): 27

## FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	GB 2042545	A	19800924	GB 1979-38348	19791106
PRAI	GB 1979-4865		19790212		
GI					



AB The title compds. I (R = H, CN, CONH<sub>2</sub>; R<sub>1</sub>, R<sub>2</sub> = H, C<sub>1-4</sub> alkyl, CH<sub>2</sub>Ph; n = 1-3), useful as coupling components in the manuf. of azo dyes, were prep'd. I contg. a phosphonic acid group (i.e. R<sub>1</sub> = R<sub>2</sub> = H) form dyes which may be reacted with cellulosic or similar fibers by baking in the presence of a carbodiimide. E.g., diiso-Pr 3-aminopropanephosphonate [53253-56-8] was stirred with EtO<sub>2</sub>CCH<sub>2</sub>CN [105-56-6] 16 h at room temp. and refluxed 16 h with 70% aq. EtNH<sub>2</sub> [75-04-7] and AcCH<sub>2</sub>CO<sub>2</sub>Et [141-97-9] to give I (R = CN, R<sub>1</sub> = R<sub>2</sub> = CHMe<sub>2</sub>, n = 3) (II) [76948-69-1]. Treatment of II with 93% H<sub>2</sub>SO<sub>4</sub> (50.degree., 16-17 h) gave I (R = CONH<sub>2</sub>, R<sub>1</sub> = R<sub>2</sub> = H, n = 3) [76948-70-4] which coupled with diazotized 2-amino-5-(N-ethylsulfonamido)benzenesulfonic acid [75446-95-6] to give an azo dye [76948-68-0]. Application of the dye to cellulosic fabrics in the presence of dicyandiamide and baking 1 min at 220.degree. gave a bright yellow-green shade of good light and wash fastness.

ST hydroxymethylphosphonoalkylpyridone azo dye component; pyridone hydroxy methyl phosphonoalkyl; phosphonoalkylpyridone reactive dye component; cellulose fiber reactive dye component

IT Dyes, azo  
 Dyes, reactive  
 (manuf. of, hydroxymethyl(phosphonoalkyl)pyridone intermediates for)

IT 75446-95-6  
 RL: USES (Uses)  
 (coupling of diazotized, with (phosphonopropyl)carbonamidomethylhydroxy pyridone)

IT 53253-56-8  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (cyclocondensation reaction of, with Et cyanoacetate, ethylamine, and Et acetoacetate)

IT 75-04-7, reactions

RL: RCT (Reactant); RACT (Reactant or reagent)  
(cyclocondensation reaction of, with diiso-Pr aminopropanephosphonate,  
Et cyanoacetate, and Et acetoacetate)

IT 105-56-6  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(cyclocondensation reaction of, with diiso-Pr aminopropanephosphonate,  
ethylamine, and Et acetoacetate)

IT 141-97-9  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(cyclocondensation reaction of, with diiso-Pr aminopropanephosphonate,  
ethylamine, and Et cyanoacetate)

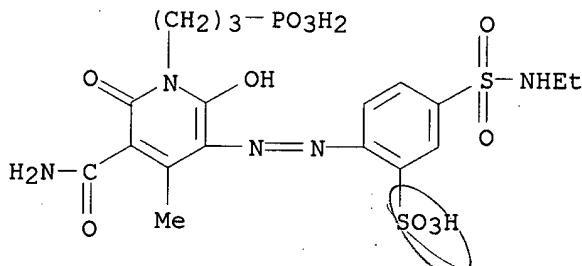
IT **76948-68-0P**  
RL: PREP (Preparation)  
(dye, fiber-reactive, manuf. of)

IT 76948-69-1P 76948-70-4P 76948-71-5P  
RL: IMF (Industrial manufacture); PREP (Preparation)  
(prepn. of, as azo dye component)

IT **76948-68-0P**  
RL: PREP (Preparation)  
(dye, fiber-reactive, manuf. of)

RN 76948-68-0 HCAPLUS

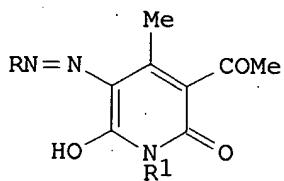
CN Benzenesulfonic acid, 2-[[5-(aminocarbonyl)-1,6-dihydro-2-hydroxy-4-methyl-6-oxo-1-(3-phosphonopropyl)-3-pyridinyl]azo]-5-[(ethylamino)sulfonyl]-  
(9CI) (CA INDEX NAME)



L35 ANSWER 18 OF 30 HCAPLUS COPYRIGHT 2003 ACS  
 AN 1979:123063 HCAPLUS  
 DN 90:123063  
 TI Azo dyes of the pyridinone series  
 IN Radtke, Volker  
 PA BASF A.-G., Fed. Rep. Ger.  
 SO Ger. Offen., 50 pp.  
 CODEN: GWXXBX  
 DT Patent  
 LA German  
 IC C09B029-36  
 CC 40-4 (Dyes, Fluorescent Whiteners, and Photosensitizers)  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2727383	A1	19790104	DE 1977-2727383	19770618
	FR 2394585	A1	19790112	FR 1978-18065	19780616
	FR 2394585	B3	19810213		
	JP 54007429	A2	19790120	JP 1978-72267	19780616
	GB 2001665	A	19790207	GB 1978-27073	19780616
PRAI	DE 1977-2727383		19770618		

GI



AB Azo dyes I [R = optionally substituted o-nitrophenyl, 4-(phenylazo)phenyl, 2-thiazolyl, 3-benzisothiazolyl, 2-benzothiazolyl; R1 = H, optionally substituted alkyl, cycloalkyl, aralkyl, aryl) were prep'd. and used to dye polyester fibers fast **yellow** shades. Thus, p-aminoazobenzene [60-09-3] was diazotized and coupled with 1,4-dimethyl-3-acetyl-6-hydroxy-2-pyridone [68304-40-5] to give I [R = 4-(PhN:N)C6H4, R1 = Me) [69521-09-1]. The other I were similarly prep'd.

ST pyridone azo dye; polyester fiber dye

IT Dyes, azo  
(acetylhydroxypyridone derivs., for polyester fibers)

IT Polyester fibers, uses and miscellaneous  
RL: USES (Uses)  
(dyes for, acetylhydroxypyridone azo derivs. as)

IT 69520-98-5  
RL: USES (Uses)  
(coupling of diazotized, with acetylhydroxypyridine deriv.)

IT 60-09-3 89-63-4 121-66-4 14346-20-4 34976-49-3 59428-16-9  
69521-00-2 69521-04-6  
RL: USES (Uses)  
(coupling of diazotized, with acetylhydroxypyridone deriv.)

IT 68304-40-5  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(coupling of, with diazotized aminoazobenzene)

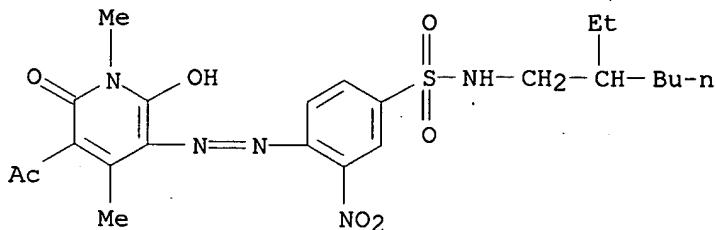
IT 37029-64-4  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(coupling of, with diazotized aminochloromethylazobenzene)

IT 69520-99-6 69521-01-3 69521-02-4 69521-03-5 **69521-05-7**  
69521-06-8 69521-07-9 69521-08-0 69521-09-1  
RL: TEM (Technical or engineered material use); USES (Uses)  
(dye, for polyester fibers, prep'n. of)

IT **69521-05-7**  
RL: TEM (Technical or engineered material use); USES (Uses)  
(dye, for polyester fibers, prep'n. of)

RN 69521-05-7 HCAPLUS

CN Benzenesulfonamide, 4-[(5-acetyl-1,6-dihydro-2-hydroxy-1,4-dimethyl-6-oxo-3-pyridinyl)azo]-N-(2-ethylhexyl)-3-nitro- (9CI) (CA INDEX NAME)



L35 ANSWER 19 OF 30 HCAPLUS COPYRIGHT 2003 ACS

AN 1977:173046 HCAPLUS

DN 86:173046

TI Water insoluble monoazo dyes

IN Fishwick, Brian Ribbons; Hughes, Nigel; Hyde, Ronald Frank

PA Imperial Chemical Industries Ltd., UK

SO Ger. Offen., 14 pp. Addn. to Ger. Offen. 1,932,806.

CODEN: GWXXBX

DT Patent

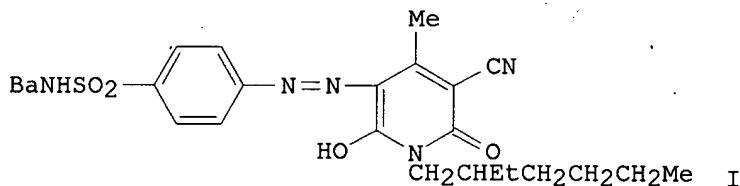
LA German

IC C09B039-00

CC 40-4 (Dyes, Fluorescent Whitening Agents, and Photosensitizers)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2612739	A1	19770217	DE 1976-2612739	19760325
	GB 1480186	A	19770720	GB 1975-12678	19760219
	BR 7601732	A	19760928	BR 1976-1732	19760322
	JP 51119720	A2	19761020	JP 1976-34119	19760326
	ES 446398	A2	19770801	ES 1976-446398	19760326
	CH 606302	A	19781031	CH 1976-3831	19760326
PRAI	GB 1975-12678		19750326		
GI					



AB A water-insol. monoazo dye having the structure I in 1 tautomeric form has better exhaustion from aq. dyebaths, better stability with respect to changes in the pH of the bath, and a higher m.p. (which facilitates formulation of the dye) than a similar dye in which the 2-ethylhexyl radical is replaced by an n-octyl radical. Thus, 4-amino-N-butylbenzenesulfonamide [1829-82-9] was diazotized and coupled with 1-(2-ethylhexyl)-3-cyano-4-methyl-6-hydroxypyrid-2-one [51418-88-3] to give I [62477-28-5] which dyed arom. polyester fibers a yellow-green shade with good lightfastness.

ST azo dye polyester fiber; pyridone deriv monoazo dye; benzenesulfonamide deriv monoazo dye

IT Dyes, azo  
 ([(butylaminosulfonyl)phenyl]azo)(ethylhexyl)pyridone derivs., for  
 polyester fibers)

IT 1829-82-9  
 RL: USES (Uses)  
 (coupling of diazotized, with pyridone derivs.)

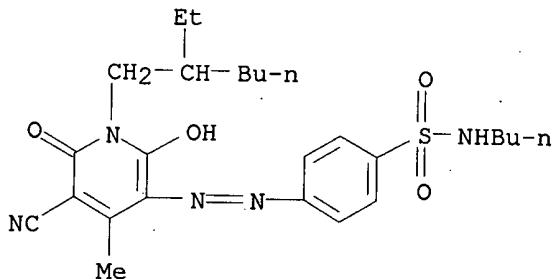
IT 51418-88-3  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (coupling of, with diazotized aminobutylbenzenesulfonamide)

IT 62477-28-5  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (dye, for polyester fibers)

IT 62477-28-5  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (dye, for polyester fibers)

RN 62477-28-5 HCPLUS

CN Benzenesulfonamide, N-butyl-4-[[5-cyano-1-(2-ethylhexyl)-1,6-dihydro-2-hydroxy-4-methyl-6-oxo-3-pyridinyl]azo]- (9CI) (CA INDEX NAME)



L35 ANSWER 20 OF 30 HCPLUS COPYRIGHT 2003 ACS  
 AN 1976:137202 HCPLUS  
 DN 84:137202  
 TI Water-insoluble monoazo dyes  
 IN Fishwick, Brian R.; Hughes, Nigel; Hyde, Ronald F.  
 PA Imperial Chemical Industries Ltd., UK  
 SO Brit., 3 pp. Addn. to Brit. 1,256,093 and Division of Brit. 1,398,741.  
 CODEN: BRXXAA

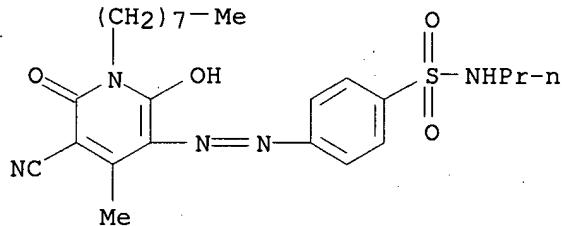
DT Patent  
 LA English  
 IC C09B

CC 40-4 (Dyes, Fluorescent Whiteners, Agents, and Photosensitizers)  
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI GB 1411740	A	19751029	GB 1975-7786	19730413
PRAI GB 1975-7786		19730413		

GI For diagram(s), see printed CA Issue.  
 AB Pyridylazo dye I [58687-84-6], which dyed arom. polyester textiles heat-, light-, and wet-fast green-yellow shades, was manufd. by treating 5.24 wt. parts 1-octyl-3-cyano-4-methyl-6-hydroxy-2-pyridone [55621-53-9] in 100 wt. parts 1 wt. % aq. NaOH contg. 6 wt. parts AcONa with a soln. made by diazotizing 4.3 wt. parts N-propyl-4-aminobenzenesulfonamide [58687-83-5] in 43 wt. % aq. H2SO4 20, ice 25, and H2O 25 wt. parts with 10 wt. parts 14 wt. % aq. NaNO2.

ST pyridylazobenzenesulfonamide polyester fiber dye; azo dye polyester fiber  
 IT Polyester fibers  
 RL: USES (Uses)  
 (dyes for, hydroxy[(sulfamoylphenyl)azo]pyridone deriv. as)  
 IT Dyes, azo  
 (hydroxy[(sulfamoylphenyl)azo]pyridone deriv., for polyester fibers)  
 IT 58687-83-5  
 RL: USES (Uses)  
 (coupling of diazotized, with cyanohydroxymethyloctylpyridone)  
 IT 55621-53-9  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (coupling of, with diazotized aminobenzenesulfonic acid propylamide)  
 IT 58687-84-6  
 RL: USES (Uses)  
 (dye, for polyester textiles, prep. of)  
 IT 58687-84-6  
 RL: USES (Uses)  
 (dye, for polyester textiles, prep. of)  
 RN 58687-84-6 HCAPLUS  
 CN Benzenesulfonamide, 4-[(5-cyano-1,6-dihydro-2-hydroxy-4-methyl-1-octyl-6-oxo-3-pyridinyl)azo]-N-propyl- (9CI) (CA INDEX NAME)



L35 ANSWER 21 OF 30 HCAPLUS COPYRIGHT 2003 ACS

AN 1976:61178 HCAPLUS

DN 84:61178

TI Pyridone dyes

IN Gnad, Gerhard; Lamm, Gunther

PA BASF A.-G., Fed. Rep. Ger.

SO Ger. Offen., 10 pp.

CODEN: GWXXBX

DT Patent

LA German

IC C09B

CC 40-4 (Dyes, Fluorescent Whitening Agents, and Photosensitizers)

FAN.CNT 2

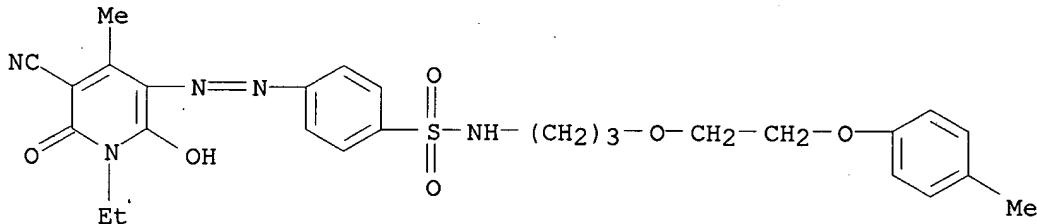
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2418087	A1	19751106	DE 1974-2418087	19740413
	DE 2418087	B2	19770728		
	DD 116252	C	19751112	DD 1975-184951	19750321
	FR 2265824	A1	19751024	FR 1975-9064	19750324
	JP 50129626	A2	19751014	JP 1975-35020	19750325
PRAI	DE 1974-2414279		19740325		
	DE 1974-2418087		19740413		

GI For diagram(s), see printed CA Issue.

AB Azo dyes (I, R = H, Me, R1 = Me, Et; Z = CO, SO2) were prep'd. and dyed

acetate and polyester fibers fast greenish **yellow** shades. Thus, PhOCH<sub>2</sub>CH<sub>2</sub>OCH<sub>2</sub>CH<sub>2</sub>NHCOC<sub>6</sub>H<sub>4</sub>NH<sub>2</sub>-4 [57966-93-5] was diazotized and coupled with 3-cyano-2-hydroxy-1,4-dimethyl-6-pyridone [39621-10-8] to give I (R = H, R<sub>1</sub> = Me, Z = CO) [57966-94-6]. The other I were similarly prep'd.

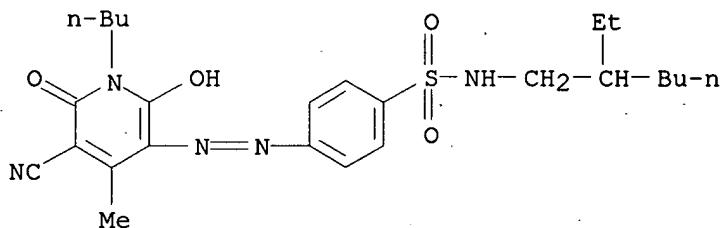
ST pyridone azo dye; polyester fiber dye; acetate fiber dye  
 IT Dyes, azo  
     (cyanohydroxymethylpyridone derivs., acetate and polyester fibers)  
 IT Acetate fibers  
 Polyester fibers  
 RL: USES (Uses)  
     (dyes for, cyanohydroxymethylpyridone derivs as)  
 IT 57966-93-5  
 RL: USES (Uses)  
     (coupling of diazotized, with cyanohydroxydimethylpyridone)  
 IT 57966-91-3  
 RL: USES (Uses)  
     (coupling of diazotized, with cyanohydroxyethylmethylypyridone)  
 IT 39621-10-8  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
     (coupling of, with diazotized aminobenzamide deriv.)  
 IT 28141-13-1  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
     (coupling of, with diazotized aminobenzenesulfonamide deriv.)  
 IT **57966-92-4** 57966-94-6  
 RL: USES (Uses)  
     (dye, for acetate and polyester fibers, prep'n. of)  
 IT **57966-92-4**  
 RL: USES (Uses)  
     (dye, for acetate and polyester fibers, prep'n. of)  
 RN 57966-92-4 HCAPLUS  
 CN Benzenesulfonamide, 4-[(5-cyano-1-ethyl-1,6-dihydro-2-hydroxy-4-methyl-6-oxo-3-pyridinyl)azo]-N-[3-[2-(4-methylphenoxy)ethoxy]propyl]- (9CI) (CA INDEX NAME)



L35 ANSWER 22 OF 30 HCAPLUS COPYRIGHT 2003 ACS  
 AN 1975:412167 HCAPLUS  
 DN 83:12167  
 TI Disperse azo dye  
 IN Fishwick, Brian R.; Hughes, Nigel; Hyde, Ronald F.  
 PA Imperial Chemical Industries Ltd.  
 SO Ger. Offen., 12 pp. Addn. to Ger. Offen. 1,932,806 (CA 73: 46639a).  
 CODEN: GWXXBX  
 DT Patent  
 LA German  
 IC C09B; D06P  
 CC 40-4 (Dyes, Fluorescent Whiteners, and Photosensitizers)

## FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI	DE 2434228	A1	19750206	DE 1974-2434228	19740716	
	GB 1452322	A	19761013	GB 1973-33718	19740604	
	NL 7409526	A	19750120	NL 1974-9526	19740715	
	CH 584264	A	19770131	CH 1974-9728	19740715	
	JP 50028530	A2	19750324	JP 1974-81629	19740716	
	ES 428300	A2	19761116	ES 1974-428300	19740716	
PRAI	GB 1973-33718		19730716			
GI	For diagram(s), see printed CA Issue.					
AB	Disperse azo dye (I) [55290-62-5] was manufd. by reaction of diazotized 4-H2NC6H4SO2NHCH2CHeBu [53817-09-7] with 1-butyl-3-cyano-4-methyl-6-hydroxy-2-pyridone [39108-47-9] and used for dyeing polyester fibers light-, wet-, and heat fast greenish yellow shades.					
ST	azo dye polyester fiber; pyridone azo dye					
IT	Dyes, azo	(cyano[[[(ethylhexyl)sulfamoyl]phenyl]azo]hydroxymethylpyridone, for polyester fibers)				
IT	Polyester fibers	RL: USES (Uses)				
		(dyes for, cyano[[[(ethylhexyl)sulfamoyl]phenyl]azo]hydroxymethylpyridone as)				
IT	53817-09-7	RL: USES (Uses)				
		(coupling of diazotized, with butylcyanohydroxymethylpyridone)				
IT	39108-47-9	RL: RCT (Reactant); RACT (Reactant or reagent)				
		(coupling of, with diazotized [(ethylhexyl)sulfamoyl]aniline)				
IT	55290-62-5P	RL: IMF (Industrial manufacture); PREP (Preparation)				
		(prepn. and polyester fiber dyeing by)				
IT	55290-62-5P	RL: IMF (Industrial manufacture); PREP (Preparation)				
		(prepn. and polyester fiber dyeing by)				
RN	55290-62-5 HCPLUS					
CN	Benzenesulfonamide, 4-[(1-butyl-5-cyano-1,6-dihydro-2-hydroxy-4-methyl-6-oxo-3-pyridinyl)azo]-N-(2-ethylhexyl)- (9CI) (CA INDEX NAME)					



L35 ANSWER 23 OF 30 HCPLUS COPYRIGHT 2003 ACS  
 AN 1975:141599 HCPLUS  
 DN 82:141599  
 TI Pyridone azo dyes  
 IN Lamm, Gunther; Grad, Gerhard  
 PA BASF A.-G.  
 SO Ger. Offen., 11 pp.

CODEN: GWXXBX

DT Patent

LA German

IC C09B

CC 40-4 (Dyes, Fluorescent Whitening Agents, and Photosensitizers)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2324983	A1	19741212	DE 1973-2324983	19730517
	DE 2324983	B2	19770120		
	DE 2324983	C3	19770915		
	CH 585246	A	19770228	CH 1974-6594	19740514
	GB 1460824	A	19770106	GB 1974-21504	19740515
	IT 1013169	A	19770330	IT 1974-51018	19740515
	FR 2229740	A1	19741213	FR 1974-17026	19740516
	FR 2229740	B1	19790216		
	JP 50019828	A2	19750303	JP 1974-54615	19740517
	JP 60005619	B4	19850213		
PRAI	DE 1973-2324983		19730517		

GI For diagram(s), see printed CA Issue.

AB The azo dye (I) [54805-02-6] and azo dye (II) [54805-03-7], useful for dyeing polyester fibers lightfast yellow shades, were prep'd. Thus, diazotization of 4-H2NC6H4SO2NHCH2CHEtBu [53817-09-7] and coupling with 1-butyl-2-hydroxy-3-cyano-4-methyl-6-pyridone [54805-01-5] gave I, lightfast greenish yellow on polyester fibers. Similarly prep'd. was II.

ST pyridone azo dye; polyester fiber azo dye

IT Dyes, azo

([(ethylhexyl)sulfamoyl]phenyl]azo]pyridones, polyester fibers)

IT Polyester fibers

RL: USES (Uses)

(dyes for, [(ethylhexyl)sulfamoyl]phenyl]azo]pyridones as)

IT 53817-09-7 53817-10-0

RL: USES (Uses)

(coupling of diazotized, with butylcyanohydroxymethylpyridone)

IT 54805-01-5

RL: RCT (Reactant); RACT (Reactant or reagent)

(coupling of, with diazotized aminobenzenesulfonamide derivs.)

IT 54805-02-6P 54805-03-7P

RL: PREP (Preparation)

(manuf. of, dye, for polyester fibers)

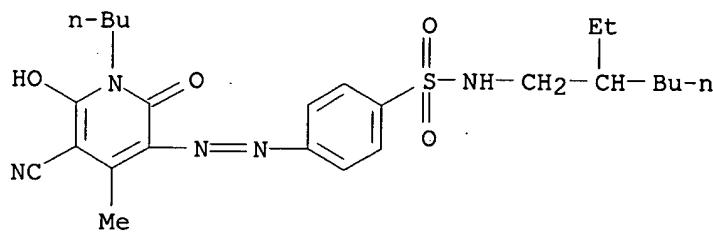
IT 54805-02-6P 54805-03-7P

RL: PREP (Preparation)

(manuf. of, dye, for polyester fibers)

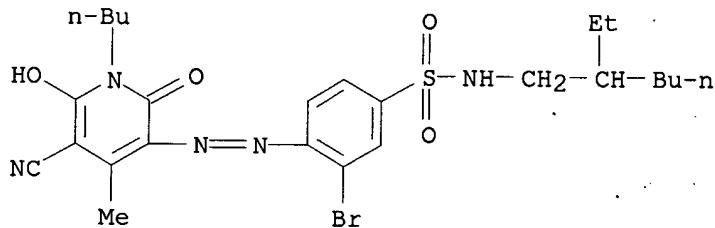
RN 54805-02-6 HCPLUS

CN Benzenesulfonamide, 4-[(1-butyl-5-cyano-1,2-dihydro-6-hydroxy-4-methyl-2-oxo-3-pyridinyl)azo]-N-(2-ethylhexyl)- (9CI) (CA INDEX NAME)



RN 54805-03-7 HCPLUS

CN Benzenesulfonamide, 3-bromo-4-[(1-butyl-5-cyano-1,2-dihydro-6-hydroxy-4-methyl-2-oxo-3-pyridinyl)azo]N-(2-ethylhexyl)- (9CI) (CA INDEX NAME)



L35 ANSWER 24 OF 30 HCPLUS COPYRIGHT 2003 ACS

AN 1975:87651 HCPLUS

DN 82:87651

TI Water-soluble azo dyes

IN Crabtree, Allen; Leng, John L.; Renfrew, Andrew H. M.; Ridyard, Denis R. A.

PA Imperial Chemical Industries Ltd.

SO Brit., 24 pp.

CODEN: BRXXAA

DT Patent

LA English

IC C09B; C07D

CC 40-4 (Dyes, Fluorescent Whitenning Agents, and Photosensitizers)

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI GB 1345864	A	19740206	GB 1970-43764	19710730
PRAI GB 1970-43764		19710730		

GI For diagram(s), see printed CA Issue.

AB Direct, fiber-reactive, and cationic azo dyes and their Co and Cr complexes were prep'd. by coupling 1-ethyl-3-nitro-4-methyl-6-hydroxypyridone (I) with the appropriate diazonium compd. and were used to dye cellulosic and acrylic fibers fast shades. Thus, 1,3-phenylenediamine-4,6-disulfonic acid in H<sub>2</sub>O was added to cyanuric chloride in Me<sub>2</sub>CO and the mixt. diazotized and added to I in H<sub>2</sub>O to ppt. azo dye (II) [51867-67-5] which dyed cellulosic material light- and washfast green-yellow.

ST acrylic fiber azo dye; cellulose azo dye; azo dye phenylazopyridone

IT Acrylic fibers

RL: USES (Uses)

(dyes for, [[[ethylhydroxymethylnitrooxodihydropyridyl)azo]benzenesulfonamido]ethyl]pyridinium chloride as)

IT Dyes, azo  
(hydroxyethylmethylnitropyridone-containing, cellusic and acrylic  
fibers)

IT Benzenesulfonic acid, 3-(acetylamino)-5-[(1-ethyl-1,6-dihydro-2-hydroxy-4-  
methyl-5-nitro-6-oxo-3-pyridinyl)azo]-4-hydroxy-, Co complex

Benzenesulfonic acid, 3-[[4-chloro-6-[(3-sulfophenyl)amino]-1,3,5-triazin-  
2-yl]amino]-5-[(1-ethyl-1,6-dihydro-2-hydroxy-4-methyl-5-nitro-6-oxo-  
pyridinyl)azo]-4-hydroxy-, cobalt complex

RL: IMF (Industrial manufacture); PREP (Preparation)  
(prepn. of)

IT 40306-75-0  
RL: USES (Uses)  
(coupling of diazotized, with ethylnitromethylhydroxypyridone)

IT 14647-78-0  
RL: USES (Uses)  
(coupling of diazotized, with hydroxyethylnitromethylpyridone)

IT 51867-66-4  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(coupling of, with diazotized [(dichlorotriazinyl)amino]disulfoaniline)

IT 31643-63-7  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(nitration of)

IT 51867-50-6P 51867-67-5P 51867-68-6P 51867-69-7P **51867-70-0P**  
RL: IMF (Industrial manufacture); PREP (Preparation)  
(prepn. of)

IT 14121-39-2  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with [(aminohydroxysulfophenyl)azo]ethylnitromethylhydrox  
ypyridone cobalt complex)

IT 33719-44-7  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with [(chlorotriazinyl)amino](pyridinylazo)benzenedisulfo  
nic acid deriv.)

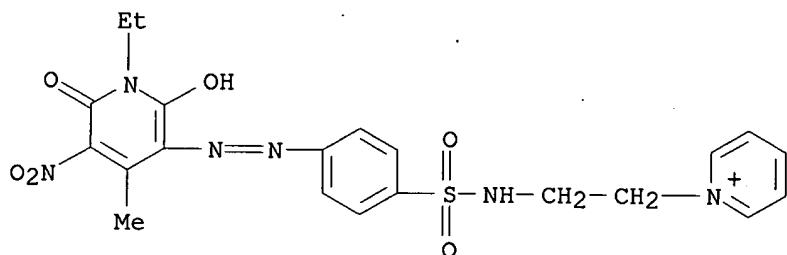
IT 121-47-1  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with [[[dichlorotriazinyl)amino]disulfophenyl]azo]hydrox  
ymethylnitroethylpyridone)

IT 137-50-8  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with cyanuric chloride)

IT **51867-70-0P**  
RL: IMF (Industrial manufacture); PREP (Preparation)  
(prepn. of)

RN 51867-70-0 HCAPLUS

CN Pyridinium, 1-[2-[[4-[(1-ethyl-1,6-dihydro-2-hydroxy-4-methyl-5-nitro-6-  
oxo-3-pyridinyl)azo]phenyl]sulfonyl]amino]ethyl]-, chloride (9CI) (CA  
INDEX NAME)

● Cl<sup>-</sup>

L35 ANSWER 25 OF 30 HCPLUS COPYRIGHT 2003 ACS

AN 1975:45037 HCPLUS

DN 82:45037

TI Cationic azo dyes

IN Moritz, Karl L.; Schuendehuette, Karl H.

PA Bayer A.-G.

SO Ger. Offen., 33 pp.

CODEN: GWXXBX

DT Patent

LA German

IC C09B

CC 40-4 (Dyes, Fluorescent Whitening Agents, and Photosensitizers)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2315637	A1	19741003	DE 1973-2315637	19730329
	IT 1010832	A	19770120	IT 1974-42552	19740326
	BE 812883	A1	19740927	BE 1974-142489	19740327
	JP 49129721	A2	19741212	JP 1974-33629	19740327
	GB 1460366	A	19770106	GB 1974-13781	19740328
	FR 2223431	A1	19741025	FR 1974-11045	19740329

PRAI DE 1973-2315637 19730329

GI For diagram(s), see printed CA Issue.

AB Fast cationic monoazo dyes for acrylic and acid-modified polyester fibers were prep'd. by coupling 2,4,6-triamino-, 4,6-diamino-2-oxo-, or 2,4,6-trihydroxypyridine derivs. with diazotized anilines contg. a quaternary ammonium or hydrazinium group, or by first coupling with diazotized chloroalkyl-substituted anilines followed by quaternization. Thus, diazotization of 3-H2NC6H4OCH2CH2N+Me2NH2 Cl<sup>-</sup> [53816-20-9] and coupling with Et 2,4,6-trihydroxynicotinate [53815-27-3] gave cationic dye I [53816-18-5], yellow on acrylic fibers. Similarly, diazotization of 3,4-O2N(H2N)C6H3N+Me3 Cl<sup>-</sup> [20280-54-0] and coupling with 1-methyl-2-(benzylimino)-3-cyano-4-(methylamino)-6-amino-1,2-dihydropyridine [39581-19-6] gave cationic dye (II) [53816-19-6], fast reddish brown on acrylic fibers. Eight other dyes were prep'd.

ST azo cationic dye; pyridinediol azo dye; pyridinetriamine azo dye; acrylic fiber dye; polyester fiber dye

IT Dyes, azo  
(cationic (phenylazo)pyridine derivs., for acrylic and polyester fibers)

IT Polyester fibers

RL: USES (Uses)  
(dyes for acid-modified, cationic (phenylazo)pyridine derivs. as)  
IT Acrylic fibers  
RL: USES (Uses)  
(dyes for, cationic (phenylazo)pyridine derivs. as)  
IT 53816-14-1  
RL: USES (Uses)  
(coupling of diazotized, with butyl trihydroxynicotinate)  
IT 20280-54-0 53816-11-8  
RL: USES (Uses)  
(coupling of diazotized, with diaminoiminodihydropyridine deriv.)  
IT 53816-12-9  
RL: USES (Uses)  
(coupling of diazotized, with diaminopyridone deriv.)  
IT 24293-73-0 53816-09-4  
RL: USES (Uses)  
(coupling of diazotized, with dihydroxypyridone deriv.)  
IT 53816-20-9  
RL: USES (Uses)  
(coupling of diazotized, with ethyl trihydroxynicotinate)  
IT 7577-51-7  
RL: USES (Uses)  
(coupling of diazotized, with trihydroxynicotinamide)  
IT 53816-13-0  
RL: USES (Uses)  
(coupling of diazotized, with trihydroxynicotinonitrile)  
IT 53831-80-4  
RL: USES (Uses)  
(coupling of diazotized, with tris[(methoxyethyl)amino]pyridinecarbonitrile)  
IT 49588-65-0 49588-66-1 52493-96-6 53815-28-4 53816-15-2  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(coupling of, with diazotized aniline deriv.)  
IT 53816-17-4  
RL: USES (Uses)  
(coupling with diazotized aniline deriv.)  
IT 53815-27-3P 53815-42-2P  
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT  
(Reactant or reagent)  
(prepn. and coupling of, with diazotized aniline deriv.)  
IT 39581-19-6P  
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT  
(Reactant or reagent)  
(prepn. and coupling of, with diazotized aniline derivs.)  
IT 53816-16-3P  
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT  
(Reactant or reagent)  
(prepn. and quaternization of, by dimethylhydrazine)  
IT 53896-87-0P  
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT  
(Reactant or reagent)  
(prepn. and quaternization of, by pyridine)  
IT 53816-03-8P 53816-04-9P 53816-05-0P 53816-06-1P 53816-07-2P  
53816-18-5P 53816-19-6P 53831-79-1P **53896-85-8P**  
53896-86-9P  
RL: IMF (Industrial manufacture); PREP (Preparation)  
(prepn. of)  
IT 57-14-7

RL: RCT (Reactant); RACT (Reactant or reagent)  
 (quaternization by, of [(chloroethyl)sulfamoyl]toluene azo deriv.)

IT 110-86-1, reactions  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (quaternization by, of chloropropionanilide azo deriv.)

IT 100-46-9  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (reaction of, with chloropyridinium chloride deriv.)

IT 40381-91-7  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (reaction of, with methoxyethylamine)

IT 109-85-3  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (reaction of, with trichloronicotinonitrile)

IT 105-53-3  
 RL: USES (Uses)  
 (reaction with ammonia, ring closure in)

IT 39581-14-1  
 RL: USES (Uses)  
 (reaction with benzylamine)

IT 53896-85-8P  
 RL: IMF (Industrial manufacture); PREP (Preparation)  
 (prepn. of)

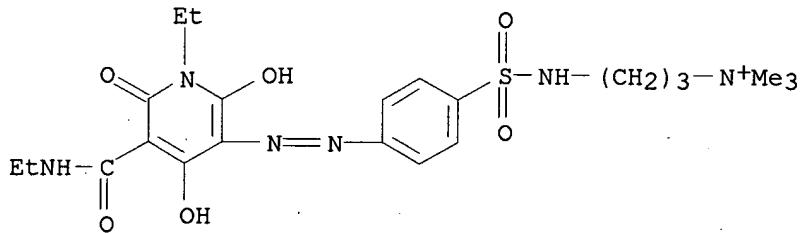
RN 53896-85-8 HCAPLUS

CN 1-Propanaminium, 3-[[4-[[1-ethyl-5-[(ethylamino)carbonyl]-1,6-dihydro-2,4-dihydroxy-6-oxo-3-pyridinyl]azo]phenyl]sulfonyl]amino]-N,N,N-trimethyl-, methyl sulfate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 53896-84-7

CMF C22 H33 N6 O6 S



CM 2

CRN 21228-90-0

CMF C H3 O4 S

Me-O-SO3-

L35 ANSWER 26 OF 30 HCAPLUS COPYRIGHT 2003 ACS  
 AN 1973:99040 HCAPLUS  
 DN 78:99040

TI Basic water-soluble azo dyes containing 6-hydroxy-2-pyridone residues  
 IN Berrie, Alistair Howard; Hunter, James Stuart; Hughes Nigel  
 PA Imperial Chemical Industries Ltd.

SO Brit., 24 pp.  
 CODEN: BRXXAA

DT Patent

LA English

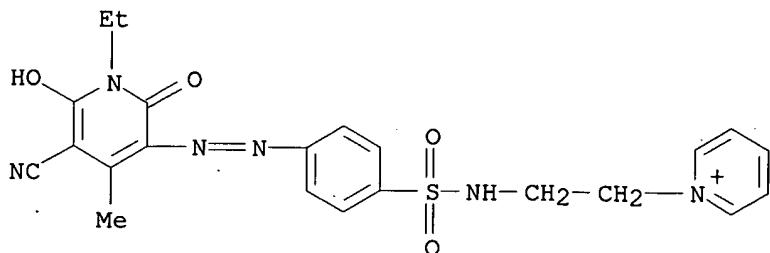
IC C09B; C07D

CC 40-4 (Dyes, Fluorescent Whiteners, and Photosensitizers)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	GB 1297116		19721122	GB 1968-58277	19681209
AB	Nine basic dyes (I, R = substituted Ph including phenylazophenyl, thiazolium; R1 = Et, substituted alkyl and phenyl; R or R1 contains an aminé, amine salt, or quaternary N group) were prep'd. and used to dye polyacrylonitrile fast yellow shades. Thus, [.beta.- (4-aminobenzenesulfonamido)ethyl]pyridinium chloride was diazotized and coupled with 1-ethyl-2-hydroxy-3-cyano-4-methyl-6-pyridone [27441-72-1] to give azo dye II [38592-49-3]. Examples of other typical I, similarly prep'd, are (R and R1 given): p-MeC6H4, H2NCH2CH2; p-O2NC6H4, m-(Cl- Me3N+)C6H4; p-(Cl- Me3N+CH2CO)C6H4, Et.				
ST	polyacrylonitrile dye; basic azo dye; hydroxypyridone azo dye; pyridone hydroxy azo dye; cyanopyridone azo dye				
IT	Acrylic fibers				
	RL: USES (Uses)	(dyes for, azo deriv. of hydroxymethyloxopyridinecarbonitrile as)			
IT	Dyes, azo				
	(hydroxymethyloxopyridinecarbonitrile derivs., acrylic fiber)				
IT	38592-49-3P	41378-43-2P	41378-45-4P	41378-47-6P	
	41378-49-8P	41568-51-8P			
	RL: IMF (Industrial manufacture); PREP (Preparation)	(prepn. of)			
IT	41378-46-5				
	RL: RCT (Reactant); RACT (Reactant or reagent)	(quaternization of)			
IT	14647-78-0	24293-73-0	41378-44-3		
	RL: USES (Uses)	(reaction of diazotized, with hydroxymethyloxopyridinecarbonitrile)			
IT	100-01-6	106-49-0			
	RL: USES (Uses)	(reaction of diazotized, with hydroxymethyloxopyridinecarbonitrile deriv.)			
IT	27441-72-1				
	RL: USES (Uses)	(reaction with diazotized compds.)			
IT	41378-50-1				
	RL: USES (Uses)	(reaction with diazotized nitroaniline)			
IT	29261-57-2				
	RL: USES (Uses)	(reaction with diazotized toluidine)			
IT	38592-49-3P				
	RL: IMF (Industrial manufacture); PREP (Preparation)	(prepn. of)			
RN	38592-49-3	HCAPLUS			
CN	Pyridinium, 1-[2-[[4-[(5-cyano-1-ethyl-1,2-dihydro-6-hydroxy-4-methyl-2-oxo-3-pyridinyl)azo]phenyl]sulfonyl]amino]ethyl]-, chloride (9CI) (CA				

INDEX NAME)



● Cl-

L35 ANSWER 27 OF 30 HCPLUS COPYRIGHT 2003 ACS

AN 1973:85912 HCPLUS

DN 78:85912

TI Azo dyes

IN Austin, Peter William; Leitch, David Shaw

PA Imperial Chemical Industries Ltd.

SO Ger. Offen., 87 pp.

CODEN: GWXXBX

DT Patent

LA German

IC C09B

CC 40-4 (Dyes, Fluorescent Whitening Agents, and Photosensitizers)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2223622	A	19721130	DE 1972-2223622	19720515
	FR 2138017	A5	19721229	FR 1972-17624	19720517
	IT 959733	A	19731110	IT 1972-24532	19720518
	US 3957747	A	19760518	US 1974-524869	19741118

PRAI GB 1971-15474  
US 1972-23862019710518  
19720327

AB Disperse, basic, and fiber-reactive azo and disazo dyes were prepd. from 3,4-tri- or tetramethylenepyridone couplers (I, R = Me, Et, iso-Pr, R1 = H, H2NCO, n = 3,4). Thus, a mixt. of NCCH2CO2Et and 2-(ethoxycarbonyl)cyclohexanone was heated in aq. EtNH2 to give a cyano deriv. (I, R = Et, R1 = CN, n = 4) [39034-04-3] which was hydrolyzed (H2SO4) to give pyridone coupler (I, R = Et, R1 = H2NCO, n = 4) (II) [39034-05-4]. 1,3-Phenylenediamine-4,6-disulfonic acid was condensed with cyanuric chloride, the intermediate diazotized, and coupled with II to give fiber-reactive azo dye (III) [39034-06-5], fast greenish yellow on cellulose fibers. The other azo dyes were similarly prepd.

ST tetramethylenepyridone coupler; trimethylenepyridone coupler; pyridone tetramethylene coupler; azo dye coupler; quinolone azo dye

IT Dyes, reactive

(of hydroxy(phenylazo)polyalkaleneypyridone derivs., cellulose fibers)  
IT Benzenesulfonic acid, 3-[[4-chloro-6-[(3-sulfophenyl)amino]-1,3,5-triazin-2-yl]amino]-5-[(2-ethyl-1,2,5,6,7,8-hexahydro-3-hydroxy-1-oxo-4-isoquinolinyl)azo]-4-hydroxy-, cobalt complex

IT 39034-05-4P  
RL: IMF (Industrial manufacture); PREP (Preparation)  
(prepn. of)  
IT 39034-04-3P 39034-06-5P 41211-07-8P 41211-09-0P 41211-11-4P  
41211-16-9P **41211-19-2P** 41211-22-7P 41508-23-0P  
RL: IMF (Industrial manufacture); PREP (Preparation)  
(prepn. of)  
IT 100-01-6  
RL: USES (Uses)  
(reaction of diazotized, with ethylhydroxytetramethylenepyridone)  
IT 40306-75-0  
RL: USES (Uses)  
(reaction of diazotized, with polyalkylene pyridone derivs.)  
IT 41211-20-5  
RL: USES (Uses)  
(reaction of diazotized, with polyalkylenepyridone deriv.)  
IT 14647-78-0  
RL: USES (Uses)  
(reaction of diazotized, with polyalkylenepyridone derivs.)  
IT 88-63-1  
RL: USES (Uses)  
(reaction with chlorotriazinyl-contg. azo deriv. of polyalkylene  
pyridone compd.)  
IT 81-11-8  
RL: USES (Uses)  
(reaction with chlorotriazinyl-contg. azo derivs. of polyalkylene  
pyridone)  
IT 121-47-1  
RL: USES (Uses)  
(reaction with chlorotriazinyl-contg. azo derivs. of polyalkylene  
pyridone compd.)  
IT 137-50-8  
RL: USES (Uses)  
(reaction with cyanuric chloride followed by diazotization and coupling  
with pyridone derivs.)  
IT 41211-06-7  
RL: USES (Uses)  
(reaction with diazotized amino(triazinylamino)benzenedisulfonic acid  
deriv.)  
IT 41211-13-6  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction with diazotized aminoacetamidoxybenzenesulfonic acid)  
IT 41211-21-6  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction with diazotized aminobenzoylbenzenesulfonic acid)  
IT 41211-18-1  
RL: USES (Uses)  
(reaction with diazotized aminophenyl deriv. of quaternized pyridine  
compd.)  
IT 611-10-9 1655-07-8  
RL: USES (Uses)  
(reaction with ethyl cyanoacetate)  
IT 105-56-6  
RL: USES (Uses)  
(reaction with oxocyclohexanecarboxylic acid ethyl ester)

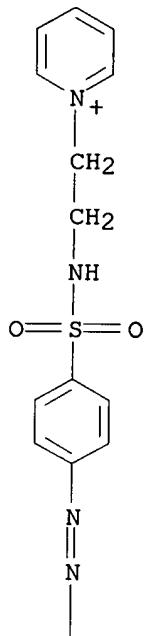
IT 41211-19-2P

RL: IMF (Industrial manufacture); PREP (Preparation)  
(prepn. of)

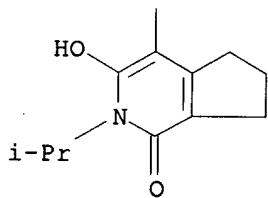
RN 41211-19-2 HCAPLUS

CN Pyridinium, 1-[2-[[4-[[2,5,6,7-tetrahydro-3-hydroxy-2-(1-methylethyl)-1-oxo-1H-cyclopenta[c]pyridin-4-yl]azo]phenyl]sulfonyl]amino]ethyl]-, chloride (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A

● Cl<sup>-</sup>

L35 ANSWER 28 OF 30 HCAPLUS COPYRIGHT 2003 ACS

AN 1972:128801 HCAPLUS

DN 76:128801

TI Isoquinoline azo dyes

IN Corby, Neville S.; Hunter, James Stuart; Leng, John L.

PA Imperial Chemical Industries Ltd.  
 SO Ger. Offen., 29 pp.  
 CODEN: GWXXBX

DT Patent  
 LA German  
 IC C09B

CC 40 (Dyes, Fluorescent Whitening Agents, and Photosensitizers)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2130993	A	19720113	DE 1971-2130993	19710622
	GB 1357331	A	19740619	GB 1970-32099	19700702
	US 3849393	A	19741119	US 1971-154201	19710617
	FR 2097125	A1	19720303	FR 1971-22532	19710621
	CH 559230	A	19750228	CH 1971-9126	19710622
	BE 769354	A1	19711230	BE 1971-105353	19710630
	NL 7109079	A	19720104	NL 1971-9079	19710701
PRAI	GB 1970-32099		19700702		

AB Two cationic monoazo dyes for polyacrylonitrile fibers were prep'd. Thus, diazotized 1-[.beta.-(4-aminophenylsulfonylamino)ethyl]pyridinium chloride was coupled with 2-ethyl-1,3-isoquinolinediol in aq. NaOH-NaOAc at 5-10.deg. to give monoazo dye (I) [34708-03-7], greenish yellow on polyacrylonitrile. Diazotization of 2-O2NC6H4NH2 and coupling with 2-[.gamma.-(dimethylamino)propyl]-1,3-isoquinolinediol-HCl gave monoazo dye (I) [34708-04-8], yellow on polyacrylonitrile.

ST azo cationic dye; isoquinoline azo dye; polyacrylonitrile fiber dye; hydroxypyridone azo dye; nitro azo dye

IT Acrylic fibers

RL: USES (Uses)

(dyes for, azo derivs. of isoquinolinone as)

IT Dyes, azo

(isoquinolinone derivs., acrylic fibers)

IT 34708-03-7P 35976-39-7P

RL: IMF (Industrial manufacture); PREP (Preparation)  
 (prepn. of)

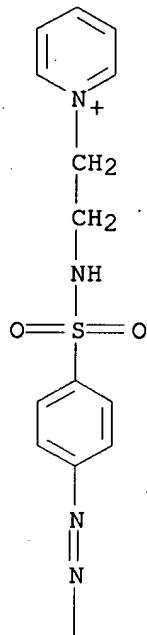
IT 34708-03-7P

RL: IMF (Industrial manufacture); PREP (Preparation)  
 (prepn. of)

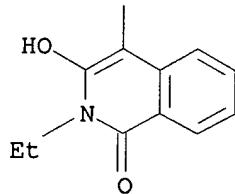
RN 34708-03-7 HCPLUS

CN Pyridinium, 1-[2-[[[4-[(2-ethyl-1,2-dihydro-3-hydroxy-1-oxo-4-isoquinolinyl)azolphenyl]sulfonyl]amino]ethyl]-, chloride (9CI) (CA INDEX NAME)

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PAGE 2-A

● Cl<sup>-</sup>

L35 ANSWER 29 OF 30 HCAPLUS COPYRIGHT 2003 ACS  
 AN 1970:521530 HCAPLUS  
 DN 73:121530  
 TI 1-Substituted 3-cyano-4-methyl-5-phenylazo-6-hydroxy-2-pyridones  
 IN Fasciati, Alfred; Ramanathan, Visvanathan; Schuetz, Hans U.; Zickendraht, Christian  
 PA CIBA Ltd.  
 SO Ger. Offen., 254 pp.  
 CODEN: GWXXBX  
 DT Patent  
 LA German  
 IC C09B  
 CC 40 (Dyes, Fluorescent Whitening Agents, and Photosensitizers)

## FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 1956142	A	19700611	DE 1969-1956142	19691107
	DE 1956142	C2	19820318		
	CH 552661	A	19740815	CH 1968-16918	19681112
	FR 2023044	A5	19700806	FR 1969-38312	19691107
	FR 2023044	B1	19740809		
	BE 741507	A	19700511	BE 1969-741507	19691110
	NL 6916969	A	19700514	NL 1969-16969	19691111
	ES 373401	A1	19720116	ES 1969-373401	19691111
	SU 415886	D	19740215	SU 1969-1375442	19691111
	RO 62496	P	19780915	RO 1969-61543	19691111
	GB 1296857	A	19721122	GB 1969-1296857	19691112
	CA 946377	A1	19740430	CA 1969-67212	19691112
	PL 83001	P	19751231	PL 1969-136874	19691112
	JP 54032804	B4	19791017	JP 1969-90404	19691112
PRAI	CH 1968-16918		19681112		
	CH 1969-15636		19691020		

GI For diagram(s), see printed CA Issue.

AB The title compds. have the general structure I, where R is Me, CHMe<sub>2</sub>, Ph, CH<sub>2</sub>CH<sub>2</sub>X (X = OH, OAc, OBz, OCO<sub>2</sub>Et, OCONHPh, NMe<sub>2</sub>, NEt<sub>2</sub>), (CH<sub>2</sub>)<sub>3</sub>Y (Y = Me, CHMe<sub>2</sub>), or NH<sub>2</sub>. R<sub>1</sub> may be an azo, anthraquinone or phthalocyanine chromophore and R<sub>2</sub> or R may carry a fiber-reactive grouping. I include anionic, disperse, and cationic types and, where R<sub>2</sub> = OH, may be metallized. I are used for dyeing cotton, wool, cellulose, polyamide, polyester, and polyacrylonitrile fibers. Thus diazotized 4-MeO(CH<sub>2</sub>)<sub>3</sub>NHSO<sub>2</sub>C<sub>6</sub>H<sub>4</sub>NH<sub>2</sub> was coupled with 3-cyano-6-hydroxy-1,4-dimethyl-2-pyridone (II) to give I (R = Me, R<sub>1</sub> = H, R<sub>2</sub> = SO<sub>2</sub>NH(CH<sub>2</sub>)<sub>3</sub>OMe-4), which dyes cellulose acetate in a greenish yellow shade having good fastness properties. II was prep'd. from NCCH<sub>2</sub>CO<sub>2</sub>Et 1, AcCH<sub>2</sub>CO<sub>2</sub>Et 1, and MeNH<sub>2</sub> 2 moles in EtOH at 110-20.degree.. Other azo dyes (30) were also prep'd. from II or similar pyridones.

ST pyridone azo dyes; azo mono dyes; cyanohydroxypyridones; acetate fibers dyes; anthraquinone reactive dyes; chlorotriazines dyes; cotton dyes; phthalocyanine reactive dyes; wool dyes; chrome complex azo dyes; cationic azo dyes; acrylic fibers dyes; benzothiazole dyes; polyester fibers dyes; disazo dyes pyridones; polyamide fibers dyes.

IT Dyes, azo

(dihydrohydroxymethyloxo(phenylazo)nicotinonitrile derivs.)

IT Fiber, acrylic, uses and miscellaneous  
Fiber, polyester, uses and miscellaneous  
Nylon, uses and miscellaneous

RL: USES (Uses)

(dyes for, dihydrohydroxymethyloxo(phenylazo)nicotinonitrile derivs. as)

IT 2-Naphthol, 1-[(2-hydroxy-4-nitrophenyl)azo]-, chromium complexes  
Benzenesulfonamide, 2-chloro-4-[(5-cyano-1,6-dihydro-2-hydroxy-1,4-dimethyl-6-oxo-3-pyridyl)azo]-5-hydroxy-, chromium complexes  
Benzenesulfonic acid, 3-[(5-cyano-1,6-dihydro-2-hydroxy-1,4-dimethyl-6-oxo-3-pyridyl)azo]-2-hydroxy-5-nitro-, chromium complexes  
Benzenesulfonic acid, 3-[(5-cyano-1,6-dihydro-2-hydroxy-4-methyl-6-oxo-1-phenyl-3-pyridyl)azo]-4-hydroxy-5-nitro-, chromium complexes  
RL: IMF (Industrial manufacture); PREP (Preparation)  
(prepn. of)

IT 27678-36-0P 27678-37-1P 27678-39-3P 28799-82-8P 28803-34-1P  
29313-67-5P 29313-69-7P 29313-70-0P 29313-71-1P 29313-72-2P  
29313-74-4P 29313-75-5P 29313-76-6P 29313-77-7P 29313-78-8P

29313-79-9P 29313-80-2P 29313-81-3P 29313-82-4P 29313-83-5P  
 29313-84-6P 29313-85-7P 29313-86-8P **29313-88-0P**

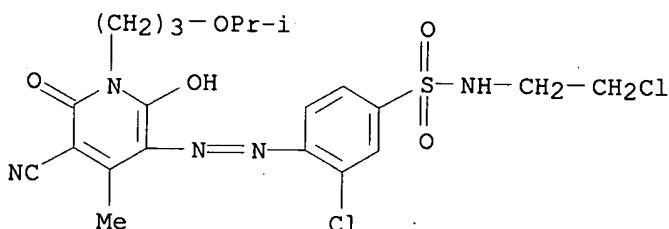
29313-89-1P 29390-83-8P 29390-85-0P 30205-19-7P  
 RL: IMF (Industrial manufacture); PREP (Preparation)  
 (prepn. of)

IT **29313-88-0P**

RL: IMF (Industrial manufacture); PREP (Preparation)  
 (prepn. of)

RN 29313-88-0 HCAPLUS

CN Benzenesulfonamide, 3-chloro-N-(2-chloroethyl)-4-[[5-cyano-1,6-dihydro-2-hydroxy-1-(3-isopropoxypyropyl)-4-methyl-6-oxo-3-pyridyl]azo]- (8CI) (CA INDEX NAME)



L35 ANSWER 30 OF 30 HCAPLUS COPYRIGHT 2003 ACS

AN 1968:437087 HCAPLUS

DN 69:37087

TI Monoazo disperse dyes for polyester fibers

IN Senshu, Hisashi; Sato, Yosuke

PA Mitsubishi Chemical Industries Co., Ltd.

SO Jpn. Tokkyo Koho, 7 pp.

CODEN: JAXXAD

DT Patent

LA Japanese

NCL 23D3

CC 40 (Dyes, Fluorescent Brightening Agents, and Photosensitizers)

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI JP 43005671 B4 19680301 JP 19650312

GI For diagram(s), see printed CA Issue.

AB 2,6,4-X2(RR1NSO2)C6H2NH2 was diazotized and coupled with I or II to give light- and sublimation-fast, yellow dyes. The following dyes were prepd. (coupling component, X, R, R1, R2 or R3, m.p., and  $\lambda$ .Me2COmax. in m.mu. given): I, Cl, Me, Me, H, 232.6-5.2.degree., 394; II, Cl, Me, Me, 213.6-16.0.degree., 394; I, Cl, Me, Me, Ph, 253-7.degree., 402; II, Cl, Et, H, Me, 203-5.degree., 394; II, Br, Me, Me, HOCH2CH2, 129-33.degree., 396; I, Br, Me, Me, 143-6.degree., 394; I, Br, Me, Ph, 220-4.degree., 397.

ST monoazo dyes; azo dyes; disperse dyes; polyester fiber dyes; pyrazolone dyes; quinoline dyes

IT Dyes, azo

(3,5-dihalo-N,N-dimethylbenzenesulfonamide derivs.)

IT 19649-59-3P 19649-60-6P **19649-61-7P** 19649-62-8P

19649-63-9P 19649-64-0P 19745-39-2P

RL: IMF (Industrial manufacture); PREP (Preparation)  
 (prepn. of)

IT 19649-61-7P

RL: IMF (Industrial manufacture); PREP (Preparation)  
(prepn. of)

RN 19649-61-7 HCPLUS

CN Benzenesulfonamide, 3,5-dichloro-4-[(1,2-dihydro-4-hydroxy-1-methyl-2-oxo-3-quinolyl)azo]-N-ethyl- (8CI) (CA INDEX NAME)

